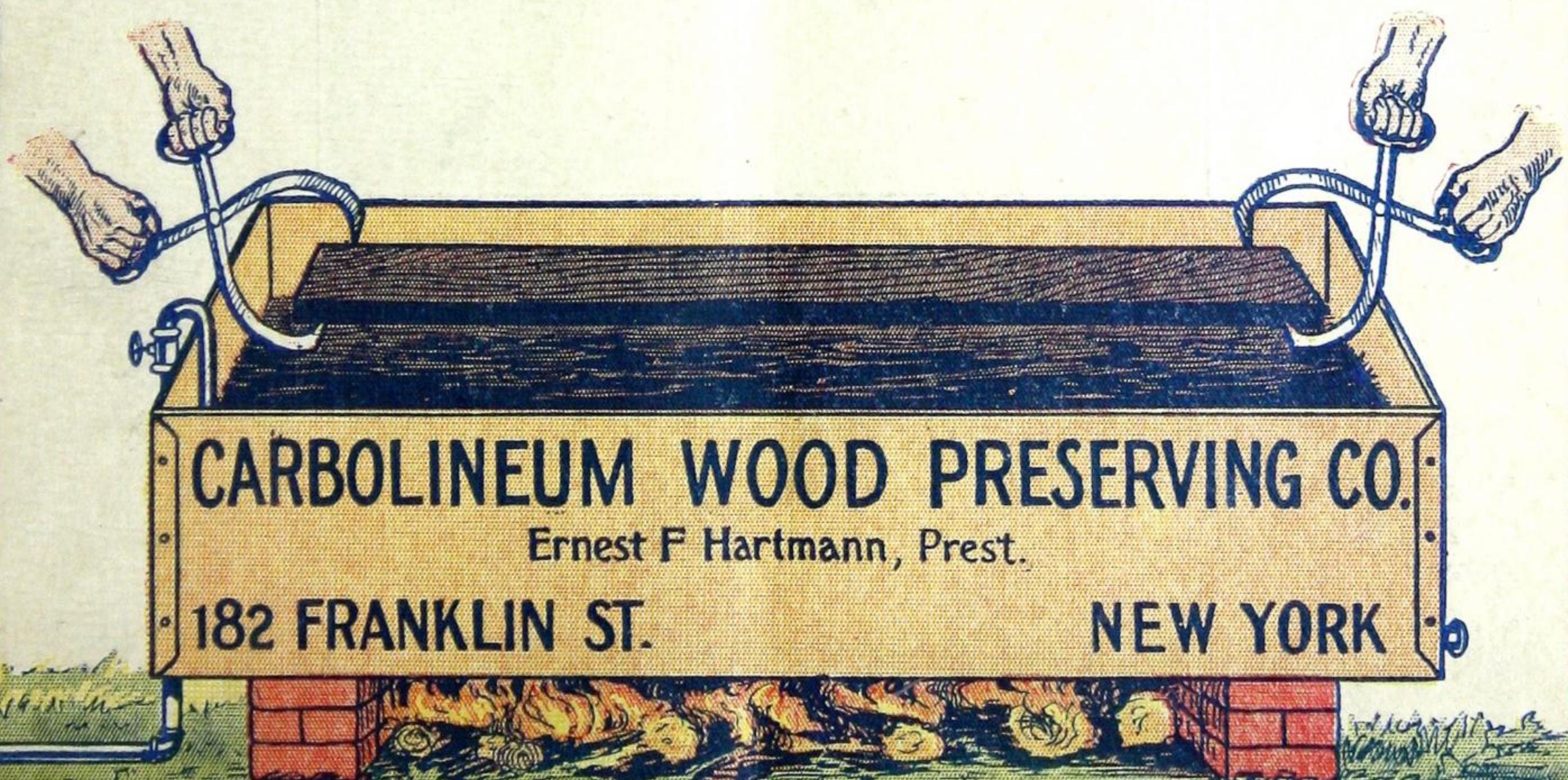
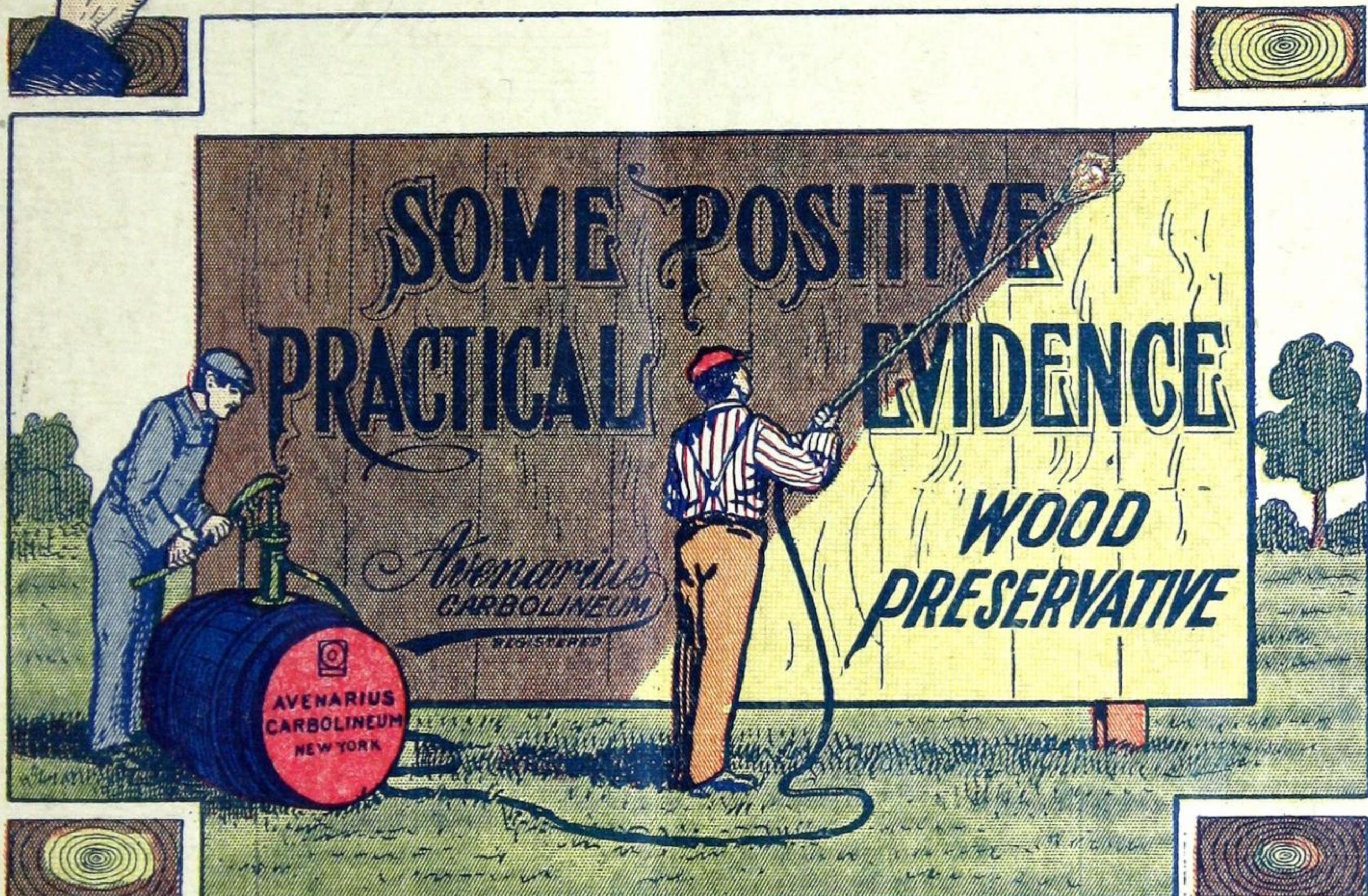
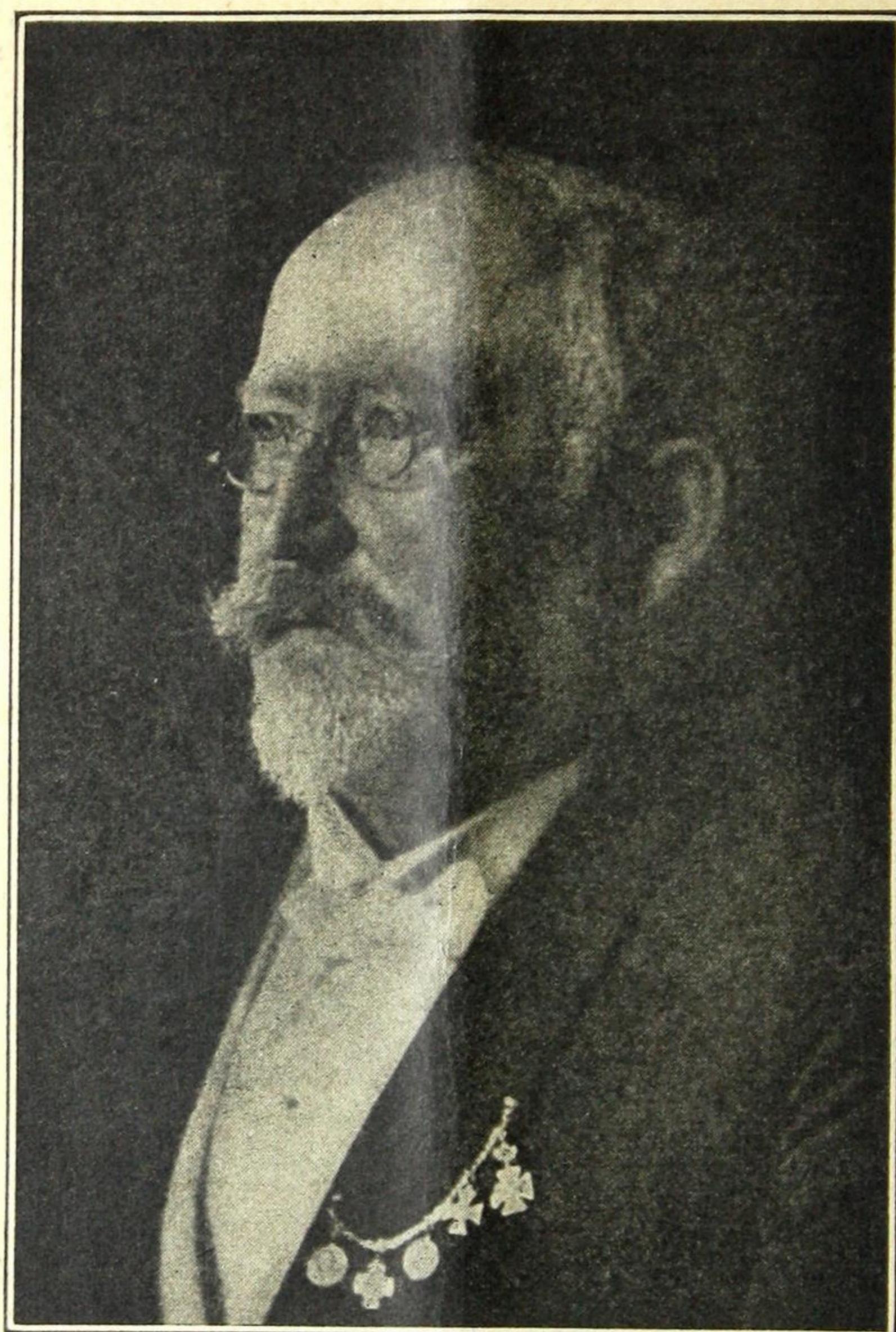


BULLETIN 34





DR. RICHARD AVENARIUS
THE INVENTOR OF CARBOLINEUM

INTRODUCTORY

"Some Positive Practical Evidence."

THIS BULLETIN is intended as a trade catalogue and not as a scientific treatise, hence we are not here concerned with the causes of decay or what requisites a good wood preservative should possess. Bulletin 78 of the United States Forest Service states :

"No process to preserve timber will come into use unless it is certain that the outlay for the treatment will be more than offset by the longer service of the treated timber."

The evidence here submitted from various parts of the United States and foreign countries will attest the general use of Avenarius Carbolineum and thus justify the statement that it is not only the most widely used but also the best wood preservative that has as yet been discovered. It is a presentation of statements from representative people in various industries on results obtained in actual practice under greatly varying conditions covering periods of from ten to twenty-five years. Nowhere in the literature on this subject has such a large number of positive statements ever been presented for any one material or method, and this should satisfy the most skeptical that Avenarius Carbolineum does preserve woodwork above and below ground or water against rot and decay.

That considerable quantities of Avenarius Carbolineum are used is well illustrated by the reproduction of actual orders on pages 16 and 17, it being perhaps unnecessary to add that a similar showing could be made with orders from other companies.

Avenarius Carbolineum was placed on the market in Germany in 1875. It was introduced into the United States in 1885, and since 1888 it has been exclusively sold by this company.

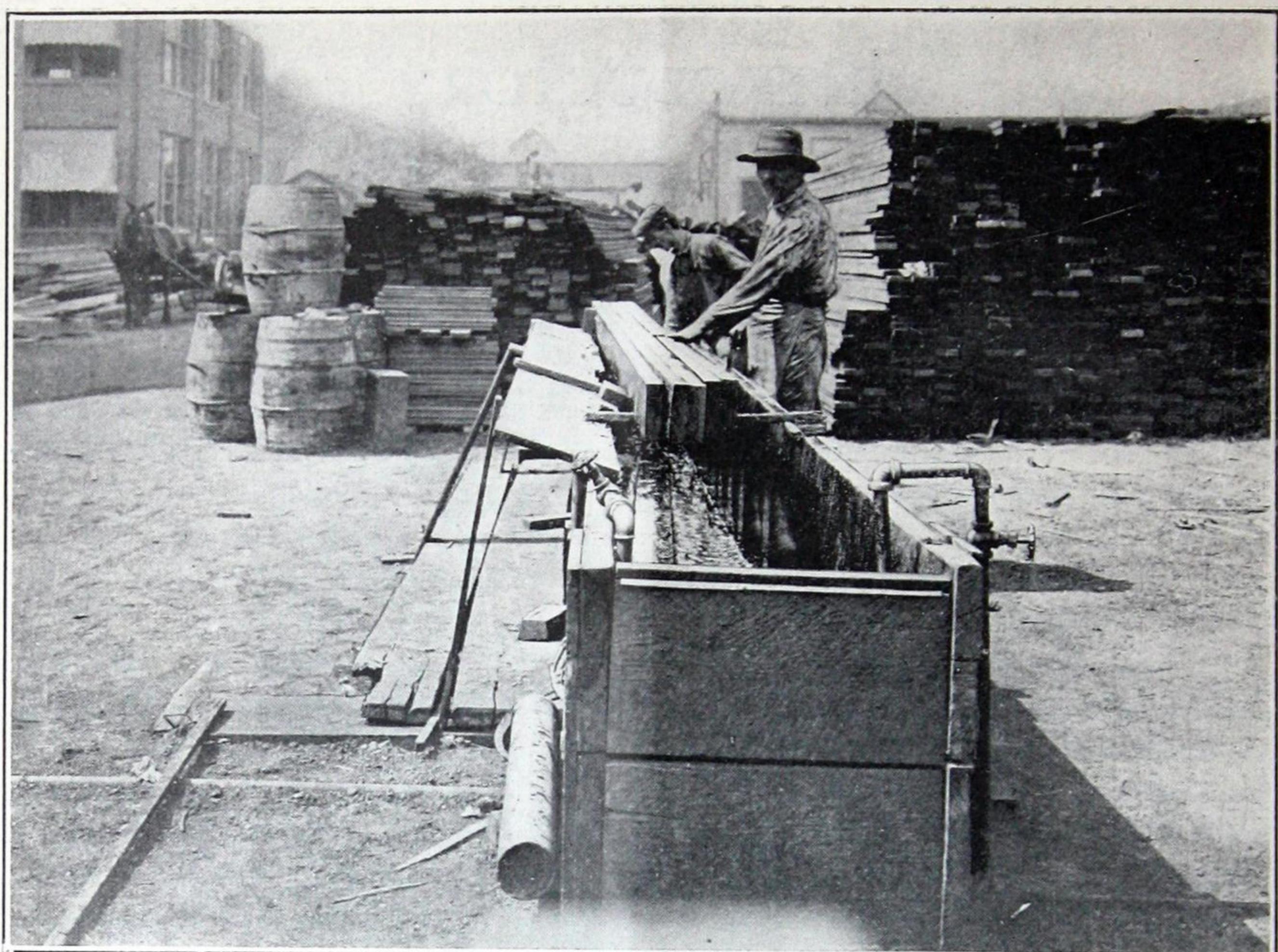
The maintenance of a high uniform standard of quality calls for a higher cost. The evidence of a competitor caused a duty to be placed on Avenarius Carbolineum. Substitutes imported as creosotes pay no duty, nor have they any expense for maintaining uniform quality. In wood preservation, where results are only ascertained after many years of practical experience, the higher first cost for the best preservative is fully warranted. As illustrative of this principle : the management of the Riga-Orel Railway in Russia had a long argument with the Board of Control of Railways in the Russian Empire. The latter protested against the use of Avenarius Carbolineum owing to its high cost. After an examination into the records and analyses of ten different preservatives, the Board of Control unanimously voted that Avenarius Carbolineum, though highest in price, was best adapted for the treatment of bridge timbers.

Upon request we will furnish a certificate of analysis for every purchase of Avenarius Carbolineum. We warrant such material to be equal to the chemical standard advertised by us, provided such analysis is made in accordance with the method prescribed in the Manual of the American Railway Engineering and Maintenance of Way Association.

Without having advertised the fact, we have had associated with us in a consulting capacity for some time past a former Expert of the United States Forest Service to better enable us to handle intricate technical wood preserving problems. Owing to the large demand for reliable and practical information on this subject, we have lately added a Consulting Department, which is prepared to undertake investigations of wood preserving problems that may confront any user of timber.

ERNEST F. HARTMANN, Assoc. Am. Soc. of C. E.

ID 93-B792.TCF



Treating Tank of Peerless Motor Car Co., Cleveland, Ohio, 20'x3'4"x3', lined with galvanized iron, with 1 $\frac{1}{4}$ " pipes lengthwise for heating the Avenarius Carbolineum. Cost of tank, \$30.00.
Labor charge, \$2.00 per 1,000 ft. B. M. Used for treating 150,000 feet of flooring, sills and joists.

Any method of preservative treatment permitting the use of a movable treating outfit recommends itself, as it enables the treatment of framed timbers at the point of construction.

The Open Tank Method insures a treatment giving the greatest amount of protection at those points where decay is most likely to set in, as for instance butts of poles or posts and cut ends of structural timber. It is well known that timber treated at a pressure plant and framed afterwards must receive a brush treatment at all cut ends, and this is eliminated by use of the Open Tank Method.

Timber can be treated at a minimum cost to obtain the maximum mechanical life.

The Open Tank Method permits of application when time is an important factor, for timber can be treated on the ground as required while construction work is going on.

The transportation of timber is an item of considerable expense. When treated at a pressure plant there is an added expense for two extra handlings, and in many cases an additional charge for transportation in one direction. This expense is eliminated by use of the Open Tank Method. Giving a like treatment as pressure plants, the saving of two extra handlings and double transportation reduces the cost of treatment by just that amount.

Again, where treating operations are carried on under the direct supervision or inspection of the engineer or owners, treating specifications are more conscientiously observed.

Timber can be more effectively inspected on the job than at the point of shipment, for not only is it difficult to inspect treated timber, but in many cases the treatment will hide defects.

Taking into consideration the funds available for treatment, or if only a moderate treatment is desired, the Open Tank Method is sufficiently flexible to permit of application.

For reasons above stated, the Open Tank Method enables a better treatment of structural timber than any pressure process and at a saving of time. The Open Tank Method combines efficiency with cheapness.



PIER SHED, 930 feet Wide, 53 feet High, Built by Baltimore Bridge Co. for
B. & O. R. R. at Locust Point, Baltimore. Avenarius Carbolineum
was used on all Sub-Flooring, Sills, Joists and Stringers.

The brush and spraying methods are adaptable to many conditions in the construction of buildings where the limited amount of timber used does not justify the expense of installing an open tank.

Cross cuts, joints, mortises, tenons, etc., can be given as many coats as conditions may warrant—two coats should always be applied.

Heavy timbers can be brush treated after erection when the timber has seasoned—checks and splits can be run full of the oil with a brush or spray—this is advisable particularly for trestles and for timbers in buildings on which steam condenses.

For general repair work it is the most practical method.

For poles it is the only method universally used by wire companies in the United States. It enables the application of a preservative treatment to the butt ends—the gains and roofs—where it is most needed.

The brush method permits some form of preservative treatment to be extended to outbuildings, sheds, etc., where an ornamental oil-paint is not essential.

For water tanks or supports, platforms, scale-timbers, fences, shingles and many other purposes, the brush method is both practicable and economical.

It is a method that has given very satisfactory results at a low cost to the greatest number of individual users of wood preservatives.

AVENARIUS CARBOLINEUM

WHAT IT IS.

1. Avenarius Carbolineum is a non-volatile, heavy oil made from the highest boiling distillate of coal tar chemically treated and prepared.
2. It is a powerful antiseptic, a thorough germicide and fungicide.
3. It is insoluble in water and possesses the power of penetrating wood.
4. It is the most definite preservative known, containing the greatest quantity of those constituents which experience has taught will remain in the timber without evaporating or undergoing any chemical change.
5. It is a heavy oily stain, imparting a pleasing nut-brown color to wood structures.
6. Gallon for gallon, it is the most concentrated wood-preservative known.
7. It is the only proprietary preservative used in all parts of the civilized world, the only one that has stood the test of forty years.

WHAT IT IS NOT.

1. Avenarius Carbolineum is not explosive.
2. It does not make wood more inflammable than it is in its natural seasoned state.
3. Is is not poisonous to handle nor are the fumes from the heated oil poisonous to man. However, this does not indicate that ordinary care should not be exercised.
4. It is not volatile, and therefore will not dry up or evaporate, nor will it harden in the can or on the brush, the latter always remaining soft.
5. It is not a paint that lies on the surface and peels or cracks off,—it penetrates.
6. It contains no acids or ingredients harmful to wood, cloth or fibrous substances.

WHAT IT DOES.

1. Avenarius Carbolineum protects wood above or below ground or water from rot, mildew and decay.
2. It largely prevents warping, checking, swelling and shrinking of woodwork.
3. It alike prevents and destroys insect life. No insects or germs will attack or live on wood treated with it.
4. It makes possible the use of less durable varieties of timber.
5. It reduces repair bills and maintenance charges to a minimum.
6. It will return 100 per cent. on the cost of a wooden structure, that is, it will double the life of the wood.

WHERE TO USE IT.

1. Avenarius Carbolineum should, in the interests of forest conservation, be applied on all woodwork used in construction.
2. In the interests of economy, it should be applied wherever two timbers fit together or where timbers come in contact with damp walls.
3. On timber so placed that free circulation of air cannot be had (apply heavily).
4. On timbering or ceilings where steam condenses; on vats, tanks, machine tracks, etc.
5. On all sills, joists, floors, understructures, foundation timbers, sheds, etc.
6. On trestles, breakers, tipples, fence posts and wooden conduits.
7. On the hull or in the hold of all vessels; instead of copper paint on the bottoms, and on all piers, piling or decking.
8. On ties, bridge timbers, poles and cross-arms, platforms and scale timbers.
9. On the underpinning of porches, shingle roofs—on sills and joists to prevent rats or mice from gnawing on them.

HOW TO USE IT.

1. Apply hot to all woodwork with a wire-bound brush, running it well into all checks or splits.
2. Cut surfaces should have extra heavy treatment.
3. On timber already in place, as trestles, bridges or other structures, a spraying or paint machine will do efficient service as it enables reaching the seasoning checks or splits on all sides.
4. By immersion of the timber in a heated bath of Avenarius Carbolineum for from 5 to 15 minutes, according to its size and intended use.

WHAT IT COVERS.

For estimating on contracts:

5 gallons per 1,000 feet B.M. for one brush coat.
8 " " " " " " two brush coats.
12 " " " " " " an immersion as above indicated.

For estimating according to surface measurement:

One gallon covers 350 sq. ft. on dressed lumber.
" " 250 " " on rough lumber.
" " 100 " " on shingle roof.

One third the quantity is required for the second coat.

NASHVILLE, CHATTANOOGA & ST. LOUIS RAILWAY
E. C. LEWIS, CHAIRMAN BOARD OF DIRECTORS
NASHVILLE, TENN.

April 11/10

Carbolineum Wood Preserving Co
New York

Replying to you favor of Y^r
day boat washed away after
15 years of service so I cannot
tell how much longer it would have
lasted. The posts are still sound.
The bridges were repaid this
fall, the top layers of a boat being
 $2\frac{1}{2} + 1\frac{1}{2}$ which were coated with
Carbolineum about 15 years ago
were sound & still brown while
the lower layers tho' profited
by the top one were entirely without
strength. I find Carbolineum
quite satisfactory to poison & keep out
damp -

E. C. Lewis

September 10, 1896, Major E. C. Lewis, M. Am.
Soc. C. E., expressed himself as follows:

"Regarding Carbolineum as a wood preserving agent, I am sure I know of none more effective or economical. This relates especially to its mode of application; the treatment to the wood being about as simple as the putting on of a coat of common paint. Several years ago I build a steamboat and coated every inch of the hull, inside and out, with one hot coat of Carbolineum. This boat has never been out of the water since. Although entirely of poplar - it is light draught - every stick is as sound as when built in the hull. No shrink, no leak, no crack anywhere. I have had treated posts in the ground five or six years, but I have not dug them up to see how sound they are. As Manager of the Hyds's Ferry Turnpike Company, I have build a number of bridges and treated all with Carbolineum. The treatment sheds the water, and I think the bridges will last indefinitely."

THE OREGON RAILROAD & NAVIGATION COMPANY
SOUTHERN PACIFIC COMPANY—Lines in Oregon

Office of Chief Engineer

At San Francisco, Calif. April 13, 1910.
PORTLAND, OREGON.

Mr. Ernest F. Hartman,
President, Carbolineum Wood Preserving Co.
No. 182 Franklin Street,
New York, N. Y.

Dear Sir:

I beg to acknowledge receipt of your letter of April 5th which has been forwarded to me at San Francisco and to advise that while I have used carbolineum since 1900 on the different construction work under my charge, I am still unable to give you any definite data as to its merits on account of the work on which I used the carbolineum being scattered practically over a good portion of the United States, but I beg to advise that I am satisfied with its use and am still continuing to use it on all frame trestle construction as well as all other frame construction, by painting the joints and end wood of all sticks. We have very little timber construction in the way of truss bridges on our lines any more, but recently I had occasion to build a short deck span at our crossing of the Willamette River near Oswego, Oregon, and for this span I specified that the entire timber in the span was to receive one coat of carbolineum before erection and the second coat after erection, as there is no question in my mind but what it will lengthen the life of timber to a very considerable extent.

Yours respectfully,

J. B. Thompson
GWB-h
Chief Engineer.

Form 2400.

4-09 5M 1's



ST. LOUIS SOUTHWESTERN RAILWAY COMPANY.
ST. LOUIS SOUTHWESTERN RAILWAY COMPANY OF TEXAS.

BRIDGE AND BUILDING DEPARTMENT

J. S. BERRY
SUPT. B. & B.

TYLER, TEXAS, 3/11 '10.

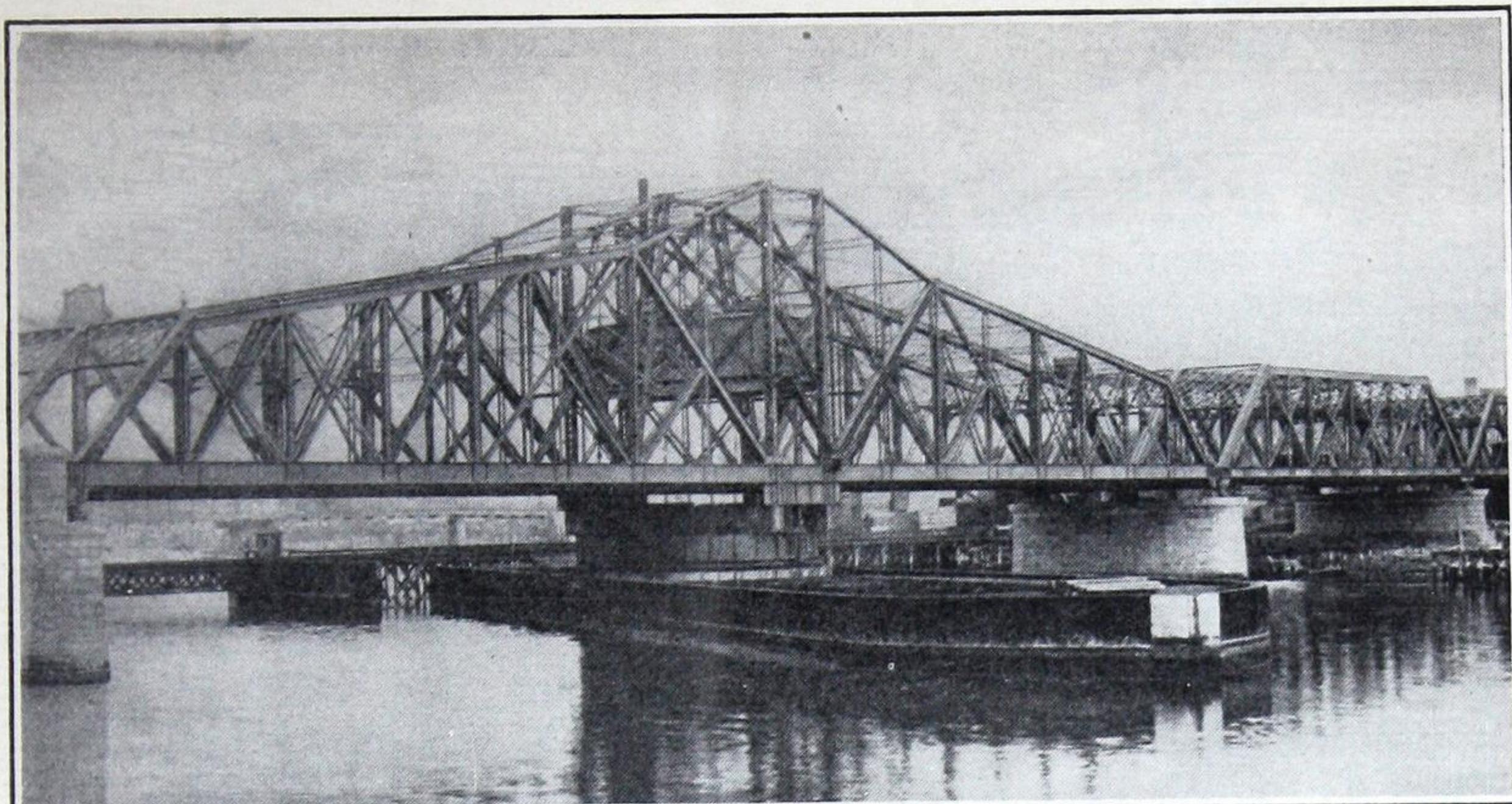
Carbolineum Wood Preserving Co.,
182 Franklin St.,
New York

Gentlemen:—

Referring to your inquiry of 3rd inst. in reference to Carbolineum Avenarius. would advise that I have used considerable of this material for our railroad sign posts, and so far as I now ascertain it is first-class for the purpose for which it is advertised.

Yours truly,

J. S. Berry
Supt. B. & B.



Four-Track Draw Bridge of New York Central & Hudson River R. R., over Harlem River, New York City, referred to in Mr Katte's letter of Feb. 15th, 1908.

No. 9.206. Subject, "Carbolineum Avenarius."

New York Central & Hudson River Railroad Co.

Chief Engineer's Office,
Room 48, Grand Central Depot,
No. 3 Vanderbilt Avenue.

NEW YORK CENTRAL & H.R.R.R.
MAIN LINE AND BRANCHES.
NEW YORK & HARLEM R.R.
MAIN LINE AND BRANCHES

WEST SHORE R.R.
MAIN LINE AND BRANCHES.
WALLKILL VALLEY R.R.
NEW JERSEY JUNCTION R.R.
DUNKIRK, ALLEGHENY VALLEY
& PITTSBURGH R.R.

Walter Katte
Chief Engineer.

New York, Nov. 23rd. 1891, 189

Gentleman:-

Replying to your favor of the 18th inst. making inquiries in regard to "Carbolineum Avenarius", I would say that I have used a great deal of it, simply upon the strength of the testimonials in regard to it, presented to me prior to my testing and giving it a trial. As it is not yet three years since I first began to use it, of course, my experience with it, as a wood preserver, is of no value. I believe it to be an excellent article, of the same character, but superior to "Fernoline" "Dead Oil" and similar compounds.

P.S.
in 4 years from now
no doubt I may be able from
my own test to endorse it much
more thoroughly wk

Yours truly,

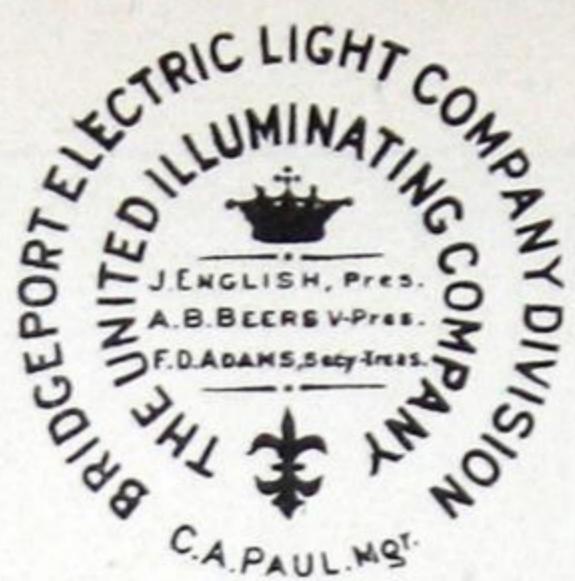
Walter Katte
Chief Engineer

Irvington, N. Y. Feb. 15th, 1908.

It is quite true that I first used Carbolineum Avenarius as early as 1888 and subsequent to that time I used and ordered its use on various timber structures, so many in number that I cannot now recall them. I think it quite likely that the last contract in which I included it was the plank sheathing of the center protection pier of the new draw bridge over the Harlem River at Fourth Avenue, New York, in 1900.

Yours truly,

Walter Katte



48 JOHN ST., BRIDGEPORT, CONN.

Carbolineum Wood Preserving Co.,
182 Franklin Street,
New York City.

Gentlemen:-

Replying to your inquiry of February 3rd as to the results of our use of Carbolineum Avenarius, would say that we have used this material about eight (8) years, and any of the poles treated since that time we find in removing them from the ground, they are practically in the same state as when we put them there.

Very respectfully,

C.A. Paul

The Sumter Telephone Company.

Carbolineum Wood Preserving Co.,
New York.

SUMTER, S. C., January 31, 1910.

Gentlemen:-

Replying to your letter of the 28th inst. We are unable to give any accurate record of the poles we have treated, but can say that the poles treated 8 or 10 years ago are now in much better condition than the untreated poles set at the same time.

Yours respectfully,
SUMTER TELEPHONE CO.

J. C. Tucker Sup.

CITIZENS WATER WORKS COMPANY
OFFICE 314 MAINE STREET
MEMBER OF THE CHAMBER OF COMMERCE OF QUINCY

QUINCY ILL. April 1, 1910.

Mr. Ernest F. Hartmann, Pres.,
Carbolineum Wood Preserving Co.,
182 Franklin Street. New York. N. Y.

Dear Sir:-

In reply to your letter of March 28th, I would state that the Quincy Water Works plant changed hands about five years ago, and I am unable to locate the first meter boxes which were treated with your preservative, and placed in use. These boxes are made of pine and are buried in cellars. We have not been obliged to replace any of the wooden meter boxes, so I presume the boxes first treated and placed in use twelve years ago, are still in good condition.

Yours truly,

WRG/OHL

CITIZENS WATER WORKS COMPANY.

BY *W.R. Geldner*.
SUPERINTENDENT.



Photograph referred to in Mr. McCarn's letter

FORM 363

SUBJECT Wood Preservatives

THE COLORADO TELEPHONE COMPANY.

OFFICE OF THE ENGINEER, TELEPHONE BUILDING

1421 CHAMPA STREET.

NO. 10-2543.

E. B. FIELD.
PRESIDENT & GENERAL MANAGER.
E. M. BURGESS.
GENERAL SUPERINTENDENT
W. A. RHODES & G. E. McCARN
ENGINEERS Plant Engineer

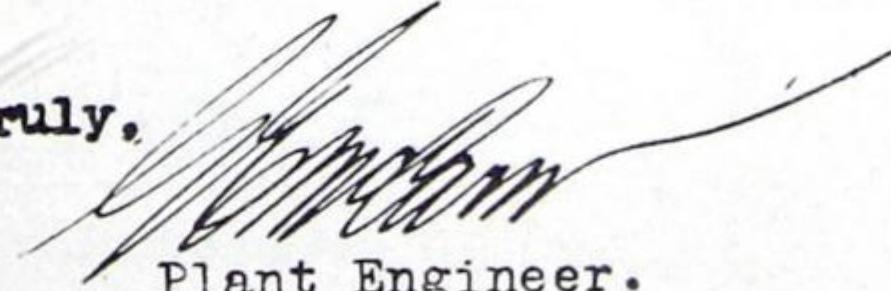
DENVER. 3-31-10-

Dear Sir:-

Replying to your letter of March 26th, I beg to state that the photograph you refer to, a copy of which I am pleased to enclose herewith, shows a number of poles which have been removed from our toll lines where we had treated the pole butts of every other pole in the lead, leaving the alternate poles untreated, in order that we might determine the efficiency of the preservative.

These poles were treated with Carbolineum Avenarius applied in two coats with a brush, the Carbolineum being heated before application. At the time the photograph was taken the poles had just been recovered from this toll lead which was at the time being rerouted. They had been in the ground between eight and nine years and the condition of the treated poles, as compared with the untreated ones, certainly speaks well for the merits of the preservative.

Yours truly,



Plant Engineer.

GEM.BC.

SUBJECT:

F. 39-09. 10M

FORM 711
UTAH LIGHT AND RAILWAY COMPANY

IN YOUR REPLY PLEASE REFER TO
No. _____]

April 7th, 1910.

Carbolineum Wood Preserving Co.,

Ernest F. Hartmann, President,

New York, N. Y.

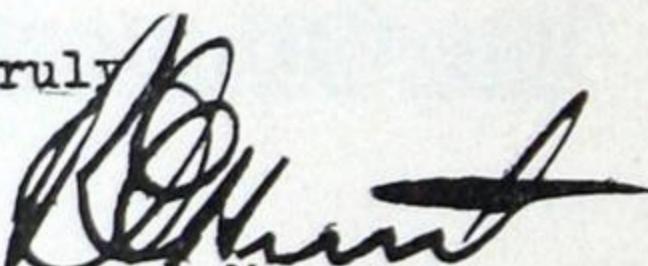
Dear Sir:-

About 12 or 15 years ago, I began using carbolineum as a wood preservative, while located in Lexington, Kentucky, and have been using same since, and always found the results very satisfactory indeed.

Since locating in this city I have had an opportunity to observe ties treated in 1901 and up to the present time they are in a good state of preservation, but I am unable to judge the length of life so far.

All ties used on this system are treated with Avenarius Carbolineum.

Yours truly,


Assistant General Manager.

Buffalo and Lake Erie Traction Company

GENERAL OFFICES, BRISBANE BUILDING

BUFFALO, N. Y. February 8th, 1910.

Mr. Ernest F. Hartmann, Pres't.,

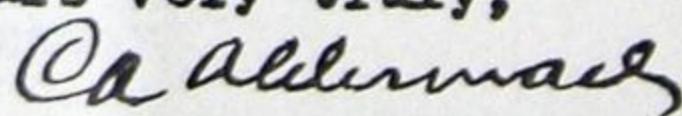
Carbolineum Wood Preserving Co.,

182 Franklin St., New York City.

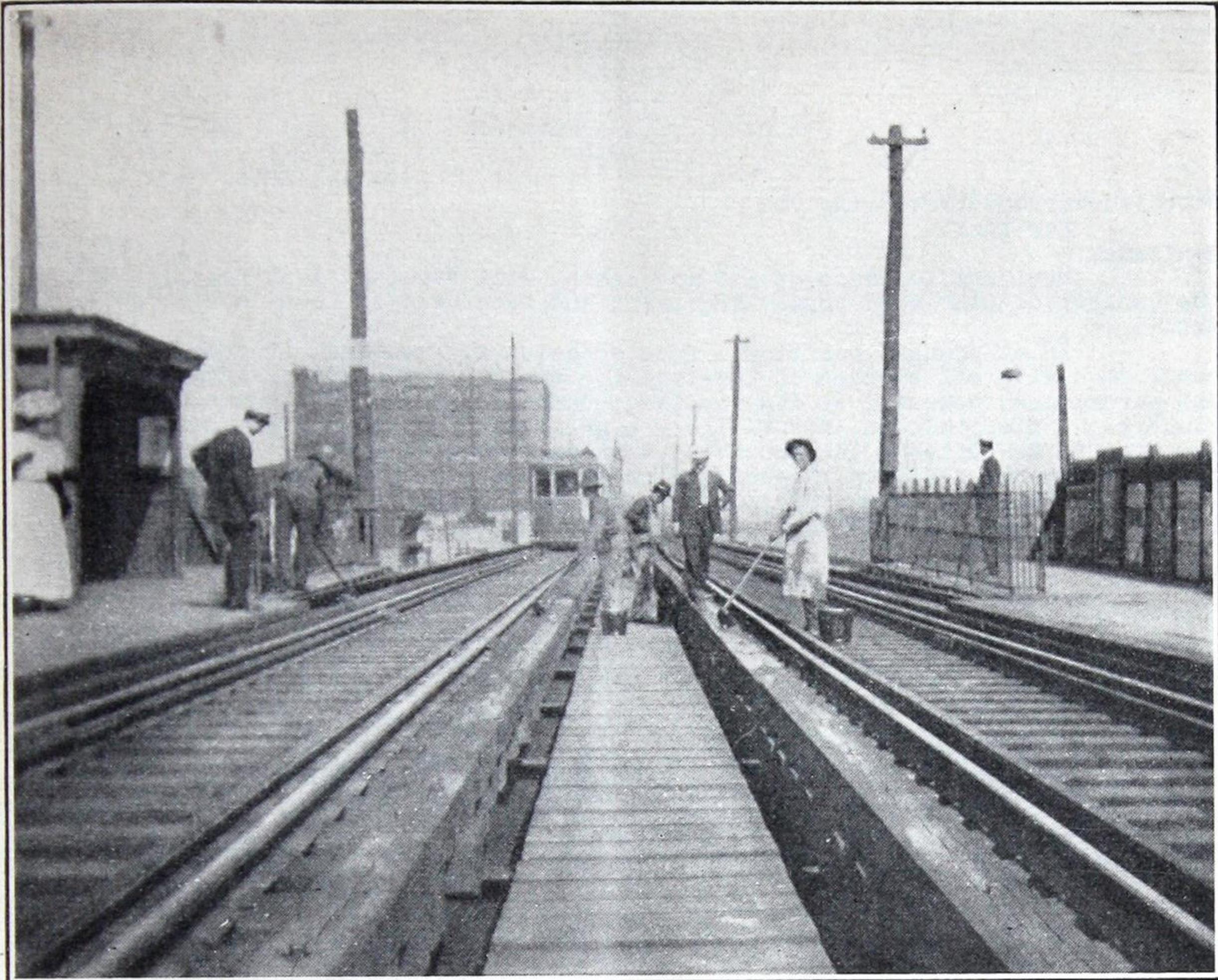
Dear Sir:-

Replying to yours of the 4th inst., beg to say that I have used your wood preservative in the treatment of trolley poles on the San Juan Light & Transit Co's line in Porto Rico and also on our line between Buffalo and Erie. I am satisfied that the life of the pole will be quite materially lengthened.

Yours very truly,



CHIEF ENGINEER.



Public Service Railway Co.'s Trestle at Hoboken, N. J., on which Avenarius Carbolineum was applied as shown above to the completed structure.

Chattanooga Railway & Light Company

710 MARKET STREET

W. E. BOILEAU, GENERAL MANAGER

CHATTANOOGA, TENN., Feby. 7th, 1910.

Carbolineum Wood Preserving Co.,
#182 Franklin Street,
New York, N. Y.

Gentlemen:-

Your favor of the 4th asking information regarding our experience of wood treated with Carbolineum Avenarius is received. The writer began the use of Carbolineum Avenarius in 1889, using same on cross-arms and pins. Several years later he also began the use of this wood preserver on the butts of poles and has been using it continuously since that time.

As to the cross-arms and pins, there can be no question as to the efficiency of this wood preserver. Cross arms and pins treated in 1889, are still in use as sound as the day they were first erected. With chestnut poles it increases the life very materially and with the cypress poles the success has not been as great, probably due to the hard shell on the outside, making it extremely difficult for the Carbolineum to penetrate and preserve the wood.

Yours truly,

W. E. Boileau

General Manager,

WEB-EL

GENERAL ELECTRIC COMPANY.

PRINCIPAL OFFICE
SCHENECTADY, N. Y.

In Reply Refer to

EMPIRE BUILDING, ATLANTA, GA.

Dec. 14, 1908.

Carbolineum Wood Preserving Co.
New York.

Gentlemen:-

Replying to yours of November 28th, will say that I am familiar with the quality of your wood preserving paint and have used it to a considerable extent.

In my present position I have occasion to recommend it frequently in connection with all classes of construction work in which we are interested. The purchasing, however, is done by local companies in various parts of the country. I find that in this vicinity a great deal of your material is used, and also in New Orleans in connection with the drainage system. The General Electric Company seldom have occasion to purchase direct material of this kind.

I will be very glad to have you refer to me, as I had occasion to use it when with the Union Bag & Paper Company.

Yours very truly,

ARB-ML

A. R. Bush, Jr.
POWER AND MINING DEPT.

CABLE AND MARCONIGRAM ADDRESS
COALESHOVEL NEW YORK
CODES IN USE
A
LIEBERS
WESTERN UNION
ABC 4TH & 5TH EDITIONS
C. W. HUNT
W. H. HUNT
W. SEATON, JR.
M. BLAKE
G. G. HUMPHREY
G. G. GILDERSLEEVE
G. HUMPHREY
W. L. VOORHIS

C. W. HUNT COMPANY,

45, BROADWAY, NEW YORK

August 14, 1907.

Carbolineum Wood Preserving Co.,
New York, N. Y.

Gentlemen:-

Replying to your favor of the 12th inst., we would say that the inquiry was not for our own use, but to get information regarding the properties of the Wood Preservative for a prospective customer in the South.

We have made several recommendations that your material be used.

Yours truly,

C. W. Hunt Company.

WMB/F

Wm. M. Barr

J. G. WHITE & COMPANY
INCORPORATED
ENGINEERS CONTRACTORS
41-43 WALL ST 43-49 EXCHANGE PL
NEW YORK NY

CORRESPONDENTS
J. G. WHITE & COMPANY, LIMITED
9 CLOAK LANE, LONDON E.C.
WARING WHITE BUILDING COMPANY, LIMITED
1A COCKSPUR ST, LONDON ENGLAND
CANADIAN WHITE COMPANY, LIMITED
SOVEREIGN BANK BUILDING, MONTREAL, CANADA

CABLE ADDRESS
WHITEMOTH NEW YORK
CODES USED
LIEBERS ABC 4TH EDN
BEDFORD MCNEILL A
WESTERN UNION

May 26, 1908.

Carbolineum Wood Preserving Company,
New York, N. Y.

Gentlemen:-

We have noted in one of the trade publications that you have published:- Directions for use of Avenarius Carbolineum.

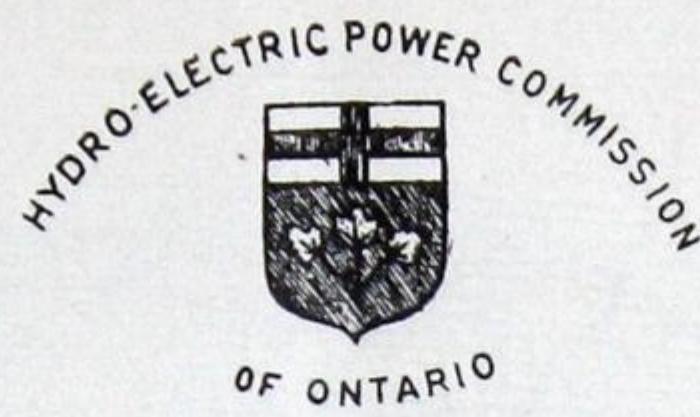
As we purchase for use a very considerable quantity of this material in the course of a year, we shall be glad to receive twelve copies of the instructions for file here and for distribution as the occasion arises.

We beg to remain,

Yours very truly,
J. G. WHITE & COMPANY, INC.

E. N. Chubon

Purchasing Agent.



CONTINENTAL LIFE BUILDING

Toronto, Feb. 8th, 1909.

The Carbolineum Wood Preserving Co.,
349 West Broadway,
New York, N. Y.

Gentlemen:-

I am in receipt of your favor of the 3rd inst.
requesting that I forward you my experience with regard to the use
of Carbolineum as a wood preserver.

In reply I would state that I have used this Carbolineum
for 17 years for the treatment of all kinds of wooden poles, cross
arms, etc. and have impregnated poles without any mechanical help,
never having had any failures. My success has been very marked
with the use of this Carbolineum as a wood preserver.

Yours truly,
HYDRO-ELECTRIC POWER COMMISSION.

A handwritten signature in black ink, appearing to read "M. F. Hartmann".

Chief Engineer.

Beardstown
Electric Light and Power Company
W. E. McCOLLOUGH
Secretary and Treasurer
BEARDSTOWN, ILLINOIS.

Operating Coal Gas and
A. C. Electric Plants

February 4th, 1910.

Carbolineum Wood Preserving Co.
Ernest F. Hartmann, Pres.,
New York, N. Y.

Gentlemen:-

Replying to yours of January 8th..

Something like eleven years of experience in treating
the butts of electric light poles, cross arms, gains for cross arms,
and the tops of poles, and also other woods that would be subject
to moisture and decay, with Carbolineum, put on with a brush has
been very satisfactory.

We have a number of old poles in our yard now, which
plainly show the difference between treated and untreated poles.
We keep some Carbolineum on hand nearly all the time, and continue
to use it because it pays for itself in lengthening the useful life
of the poles and the materials it is used on.

We think better results would be secured if the poles
and woods were thoroughly dried before being treated, and were
then dipped in tanks containing the heated Carbolineum.

You are at liberty to make use of this where it will
do you the most good.

Yours very truly,
Beardstown Electric Lt. & Pr. Co.

A handwritten signature in black ink, appearing to read "W. E. McColough". Below the signature, the word "Secy." is written.

JAS. H. WILLIAMSON
W. H. WILLIAMSON
JAS. H. WILLIAMSON, JR.

POST OFFICE
AND
TELEGRAPH OFFICE
BURLINGTON, N.C.

SHIPPING POINT
AND
EXPRESS OFFICE
ELON COLLEGE, N.C.



Burlington, Alamance Co., N.C. March 5th, 1910.

Messrs. Carbolineum Wood Preserving Co.,
New York City.

Gentlemen:-

Your favor of the 3rd inst. received and noted. If we are not mistaken, we used the first of your wood preserver in March 1895, and the results obtained from its use have been highly satisfactory to us. In fact anyone using wood in damp and exposed places makes a vast mistake not to treat the same with your preservative for we figure that it fully triples the life of the lumber.

No one using lumber in damp and exposed places can afford not to treat the same with your preparation as we see it, and we cannot say too much in its praise.

Yours truly,

Jas. H. Williamson

Cherokee Falls Manufacturing Co.

J. C. PLONK, President

COTTON GOODS

R. P. ROBERTS, Treasurer

EXPRESS AND TELEGRAPH OFFICE
BLACKSBURG, SOUTH CAROLINA

Cherokee Falls, S.C. April 15, 1910.

Carbolineum Wood Preserving Co.,

New York.

Gentlemen:-

Replying to your letter of recent date, we beg to say that we have been using your wood preserving preparation "Aenarius Carbolineum" for a number of years and have found it satisfactory, so much so that we expect to continue its use whenever a wood preservative is necessary.

Yours truly,

CHEROKEE FALLS MFG. CO.

R. J. Plonk

H. C. MARCHANT, PRESIDENT

R. R. VALENTINE, VICE-PRESIDENT

L. T. HANCKEL, TREASURER

Charlottesville Woolen Mills
Manufacturers of
High Grade Cudel Grays, Indigo, Blues &c.
Cudel Grays a specialty.

3/30/10.

Carbolineum Wood Preserving Co.,
182 Franklin Street, New York.

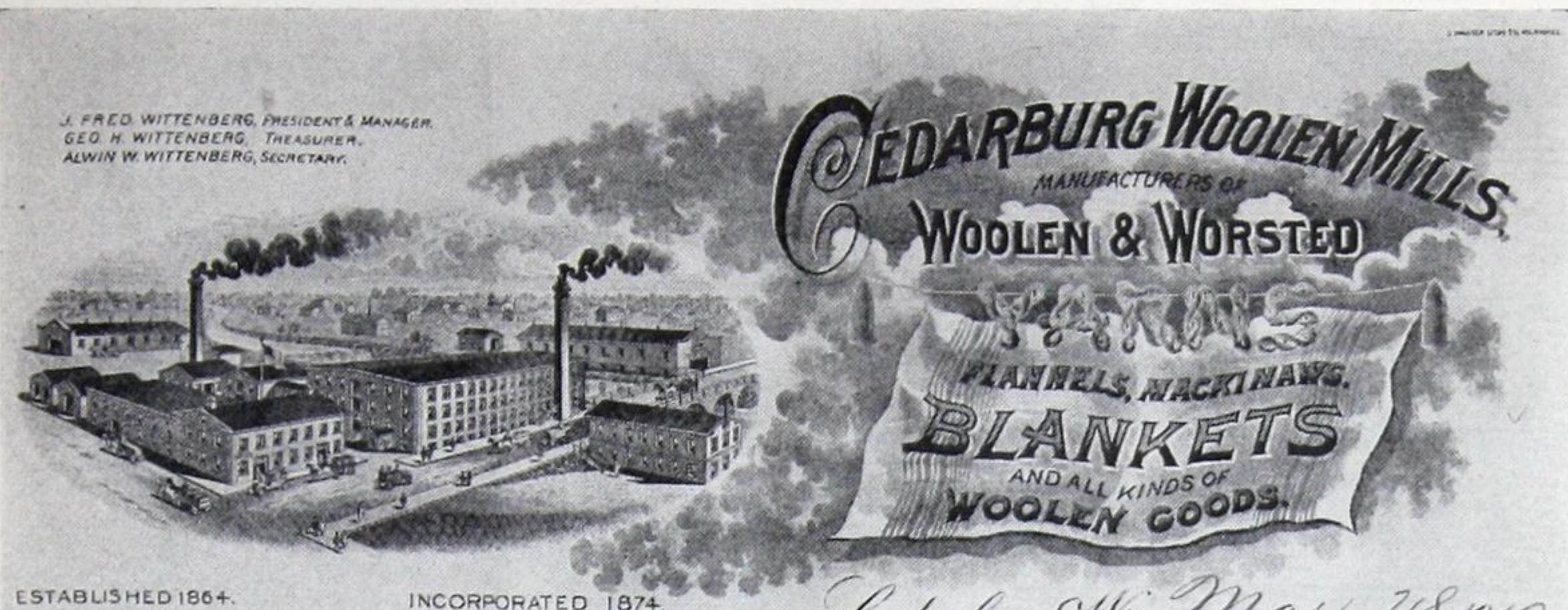
Gentlemen:-

Your favor of the 28th inst., with regard to Aenarius Carbolineum, is at hand. In reply we take pleasure in stating that we have used this material for something over ten years, and have been entirely satisfied with results, and expect to continue its use.

Yours very truly,

H. C. Marchant, Pres.

M



ESTABLISHED 1864.

INCORPORATED 1874.

Cedarburg, Wis. Mar 28, 1910

Mr Ernst F. Hartmann Pres
Carbolineum Wood Preserving Co
182 Franklin St. New York.

Dear Sir

We have been using your Carbolineum Avenarius as a wood preservative over a period of twenty years, with good results. We use it now, and then whenever we desire a wood preservative, as we are satisfied with our past experience in the use of same, we obtained very flattering results.

Very Respectfully Yours
Cedarburg Woolen Mills

J. Fred Wittenberg
President



J. CAPP'S & SONS. Limited.

MANUFACTURERS OF

WOOLEN GOODS AND CLOTHING.

DICTATED BY

J. G. C.

JACKSONVILLE, ILL.

Mar. 30, '10.

Carbolineum Wood Preserving Co.,
1825 Franklin Street, N. Y.

Gentlemen:—

We are in receipt of your favor of the 23rd inst., and in reply are glad to be able to state that we have used your production under the name of Avenarius Carbolineum for many years, we think ten or fifteen, and have been very well satisfied with the same. We believe it is a good wood preservative and would heartily recommend it to anyone needing any goods of this kind.

Yours truly,

J. Capp's - Jun. 27

NORFOLK AND PORTSMOUTH TRACTION COMPANY.

ORDER No. A 157
Must be on invoice.

NORFOLK, VA.

Jan 18

*Carbolineum Wood Preserving Co
349 West Broadway N.Y.
Newark N.J.*

Please deliver to this Company at the following articles and note these instructions.

Separate bills are required for each order, and our order number must appear on all bills.

Bills should be rendered on shipment of goods and all bills covering material received up to last month will be paid between the 15th and 20th of month succeeding delivery, and all bills not received by end of month will not be paid until following month.

QUANTITY	ARTICLE	PRICE	AMOUNT
----------	---------	-------	--------

NORFOLK AND PORTSMOUTH TRACTION COMPANY.

ORDER No. A 157
Must be on invoice.

NORFOLK, VA.

Dec 27

*Carbolineum Wood Preserving Co
New York N.Y.
Newark N.J. 41st & Kilian*

Please deliver to this Company at the following articles and note these instructions.

Separate bills are required for each order, and our order number must appear on all bills.

Bills should be rendered on shipment of goods and all bills covering material received up to end of month will be paid between the 15th and 20th of month succeeding delivery, and all bills not received by end of month will not be paid until following month.

QUANTITY	ARTICLE	PRICE
----------	---------	-------

6000 Gal Avenarius Carbolineum

NORFOLK AND PORTSMOUTH TRACTION COMPANY.

ORDER No. A 6405
Must be on invoice.

NORFOLK, VA.

Dec 27

*Carbolineum Wood Preserving Co
349 West Broadway N.Y.
Newark N.J.*

Please deliver to this Company at the following articles and note these instructions.

Separate bills are required for each order, and our order number must appear on all bills.

Bills should be rendered on shipment of goods and all bills covering material received up to end of month will be paid between the 15th and 20th of month succeeding delivery, and all bills not received by end of month will not be paid until following month.

QUANTITY	ARTICLE	PRICE
----------	---------	-------

2720 Gal Avenarius Carbolineum

J. B. Newark N.J.

Approved:

C.N.

General Manager.

H. Bottom
Purchasing

Public Service Railway Com

763 BROAD STREET

Newark, N. J. Mar.

To Carbolineum Wood preserving Co., New York
Please furnish undermentioned supplies, to be consigned EXACTLY
M. Schreiber Eng M of W, c/o

PUBLIC SERVICE RAILWAY COMPANY

Passaic Wharf,
Newark, N. J.

ORDER No. 54

Ship via:

Z BOTH

MAR 19

12 Bbls. Carbolineum Avenari

80¢ cal. F.O.B. N.Y.

PUBLIC SERVICE RAILWAY COMPANY

BROAD AND ARCH STREETS

J. A. PEARSON,
PURCHASING AGENT

Philadelphia, Nov. 14-

To Carbolineum Wood Preserving Co.
349 West Broadway N.Y.

Please deliver to PUBLIC SERVICE RAILWAY CO.
M. Schreiber, Newark, N.J.

MARK ON YOUR BILL ORDER NO. RW

1-carload Avenarius Co.

J. A. PEARSON,
PURCHASING AGENT

PUBLIC SERVICE R

J. A. PEARSON,
PURCHASING AGENT

To Carbol

34

Please deliver to F

M. Schreib

N.J.

To Carbolineum
349 West Broadway N.Y.

Please deliver to PL

M. Schrei

To Carbo

Please deliver to F

M. Schreib

N.J.

1- carloa

1- carload of Avenarius Co.

PUBLIC SERVICE RAILWAY COMPANY
Deliver as soon as possible
BROAD AND ARCH STREETS

J. A. PEARSON,
PURCHASING AGENT

Philadelphia, March 2, 1911

To Carbolineum Wood Preserving Co.
349 W. Broadway, New York City

Please deliver to PUBLIC SERVICE RAILWAY CO.
M. Schreiber, Eng M of W. Plankroad siding
N.J.

MARK ON YOUR BILL ORDER NO. F

2 carloads of Avenarius Carbolineum.

AGGREGATING MORE THAN 60,000

RAILWAY COMPANY

BROAD AND ARCH STREETS

Philadelphia, April 30-1908

serving Co.
Broadway, N.Y.ICE RAILWAY CO.
Passaic Wharf, Newark N.J.
BILL ORDER NO. Rwy 1830

RAILWAY COMPANY

BROAD AND ARCH STREETS

Philadelphia, July 17-1908

serving Co.
Broadway, N.Y.
ICE RAILWAY CO.
Passaic Wharf Newark N.J.
BILL ORDER NO. Rwy 2787

AILWAY COMPANY.

BROAD AND ARCH STREETS

Philadelphia, 10/4/09

serving Co.,
New York
AILWAY CO.
Newton Ave Car Barn,
BILL ORDER NO. Rwy 10937

ICE RAILWAY COMPANY.

BROAD AND ARCH STREETS

Philadelphia, Jan. 29-1909



PUBLIC SERVICE RAILWAY

BROAD AND ARCH STREETS

Philadelphia

To Carbolineum wood Preserving
349 West Broadway, N.Y.
Please deliver to PUBLIC SERVICE RAILWAY
M. Schreiber Eng M of W plank
Newark, N.J. MARK ON YOUR BILL

Two carloads of Avenarius Co

SERVICE RAILWAY COMPANY

BROAD AND ARCH STREETS

Philadelphia, Feb. 4-1910

ineum Wood Preserving Co.
182 Franklin street New York.PUBLIC SERVICE RAILWAY CO.
hart Newark, N.J. Passaic Wharf
MARK ON YOUR BILL ORDER NO. Rwy 133

Avenarius Carbolineum



Purchasing Agents Office

101 Milk St.

Boston Mass. March 4th, 1908

Carbolineum Wood Preservative Co.,
349 W. Broadway, New York

Dear Sirs:-



Purchasing Agents Office

101 Milk St.

Boston Mass.

July 16, 1909

Carbolineum Wood Preserving Co.,
New York, N.Y.

Dear Sirs:-

Referring to yours of the 15th inst., in reference to our order F-6047, please forward 1000 gallons account of this order from your stock in New York at price named on order f.o.b. New York.

You may increase order this quantity, we accepting the shipment which you have ordered from abroad, 2000 gallons, f.o.b. Boston.

Yours truly,

Order No. F 4680

Req. No. 4218

BOSTON ELEVATED RAILWAY COMPANY.

BUREAU OF PURCHASE

To Carbolineum Wood Preserving Co.
349 West Broadway, New York 101 Milk St., Boston, May 21, 1909

Please furnish this Company with the following articles, and send bill on form furnished by this Company, for each consignment direct to the undersigned, noting on the bill number of this order and requisition number. See conditions of purchase on back of this order.

Consign to and mark BOSTON ELEVATED RAILWAY COMPANY, Care of

R. HAPGOOD, Surgt. of Tracks,
363 Dorchester Ave., Co. Bost. Mass.

Order No. F 6047

Req. No. 4265

BOSTON ELEVATED RAILWAY COMPANY.

BUREAU OF PURCHASE

To Carbolineum Wood Preserving Co.
349 West Broadway, N.Y. 101 Milk St., Boston, July 8, 1909

Please furnish this Company with the following articles, and send bill on form furnished by this Company, for each consignment direct to the undersigned, noting on the bill number of this order and requisition number. See conditions of purchase on back of this order.

Consign to and mark BOSTON ELEVATED RAILWAY COMPANY, Care of R. HAPGOOD, Surgt. of Tracks,

B. & R. SPUR TRACK,

EAST SOMERVILLE MASS.

VIA B. & M. R.R.

2000 Gals in the Avenarius Carbolineum

Push Delivery

Price of these goods is F. O. B. destination, freight or express charges must be prepaid. Return this order if you cannot fill according to terms and delivery stated hereon. Read instructions on back of this order.

Wanted As above

When material is purchased F.O.B.

PURCHASING AGENT

NS OF AVENARIUS CARBOLINEUM.

KNICKERBOCKER ICE COMPANY

171 LA SALLE ST., SUITE 716-725

NEW YORK LIFE BUILDING

W. J. SHEDD,
1st VICE-PRESIDENT AND GENERAL MANAGER

CHICAGO

July 3, 1909.

Carbolineum Wood Preserving Co.,

349 W. Broadway,
New York, N. Y.

Gentlemen:-

Replying to your letter of July 1st, asking us to state our experience in regard to the lasting qualities of your Avenarius Carbolineum. We have used this Preservative, I think, since about 1889, and it has stood the test and increased the life of all the wood to which we have applied it. Probably the best I can say for it, is that after all these trial years we are still using it.

Yours very truly,


 1st Vice President & General Manager

GOTTFRIED BREWING CO.

Cor. Archer and Stewart Avenues,

Office: 85 ALEXANDER STREET.

JOHN H. WEISS, PRESIDENT
CARL M. GOTTFRIED, SECRETARY
FERO. GUNDRUM, VICE-PRESIDENT

Chicago, April 18th, 1910.

Carbolineum Wood Preserving Co.,

#182 Franklin St.,

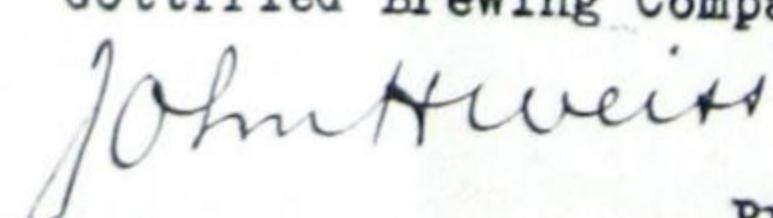
New York, N.Y.

Gentlemen:-

We have used your Carbolineum Avenarius for wood preservation since 1885 with very satisfactory results, and are still using the same for the purpose whenever the occasion requires.

Yours very truly,

Gottfried Brewing Company

by 

President

MOUNTAIN ICE COMPANY
51 & 53 NEWARK STREET.
HOBOKEN, N. J.

W. S. CO., 8-08
H. W. DAHRENBURG, PRESIDENT & GENERAL MANAGER
J. P. KINGSBURY, SECRETARY & TREASURER

101

July 12, 1909.

Mr. Ernest Hartman. President.
Carbolineum Wood Preserving Company.
349 West Broadway. N. Y. City.

Dear Sir:

Replying to your communication of the sixth, asking what has been the results of our using the Avenarius Carbolineum, we take pleasure in stating that during the early use thereof, we were rather cautious, and looked upon same more in an experimental way, but to our own satisfaction the experimenting has passed, and the best proof we can offer that results have been obtained is that we have universally adopted the use thereof on all new work, and also on all repair work, and unhesitatingly state that to our best judgment it is a money saver, laying aside the fact of its being a great protection to the building where used.

Yours truly.

Mountain Ice Company,

H. W. Dahmenburg
General Manager.

HWB/G

SPRING LAKE FORREST LAKE ST MARY'S LAKE
C. Deutermann & Son
LAKE AND HYGEIA
WHOLESALE & RETAIL ICE FAMILY TRADE & SPECIALTY
GRAIN, FLOUR, FEED, HAY & STRAW
White Plains, N.Y.
Oct. 8, 1908.

The Carbolineum Wood Preserving Co.,
New York City.

Gentlemen:-

We coated the sills of one of our ice houses with carbolineum in the year 1893 and find today that the sills are as good as new, where ordinarily they would have rotted out in five years time and would cost us from \$600.00 to \$700.00 to replace the same. Any kind of wood coated with carbolineum will last four times as long as it will without the use of carbolineum.

Yours respectfully,

C. DEUTERMANN & SON.

Per *L. D. Paeder*

The Union Bag & Paper Company



17 BATTERY PLACE,

New York, July 23, 1909.

Carbolineum Wood Preserving Co.,
182 Franklin Street, New York.

Gentlemen:-

Replying to yours of the 9th in reference to the use of Avenarius Carbolineum on the floor over the machine room that is exposed to steam from below. We have used the material for a similar purpose and have found it satisfactory and much better than ordinary paint for preserving the wood.

Yours truly,

Purchasing Agent

BANKERS LINEN
AND
BOND PAPERS

SOUTHWORTH COMPANY
MANUFACTURERS OF
FINE WRITING & LEDGER
PAPERS

This Sheet Sample of
BANKERS LINEN BOND
LINEN FINISH

Mittineague, Mass

July 8th, 1909

Carbolineum Wood Preserving Co.,

Gentlemen:-

We are in receipt of your letter of the 7th inst., and in reply would say that we have used your preservative on our stuff chests, and other places where moisture comes in contact with wood, such as stock carts, etc., but have never used it on flooring. We think, however, we should very likely use the preservative under conditions such as you describe in your letter.

Yours truly,

Southworth Co.

P. S. - The preservative has proven perfectly satisfactory wherever we have used it.

CABLE ADDRESS,
UPPERLEX.

NEW YORK,
92-98 CLIFF STREET.

BOSTON,
11-17 EAST STREET.

AMERICAN HIDE AND LEATHER CO

225 LAKE STREET

CHICAGO, April 22, 1910.

Mr. Ernest F. Hartmann, Pres.

Carbolineum Wood Preserving Co.,
New York, N. Y.

Dear Sir:-

Replying to your favor of the 20th. We have used your preparation for close on to 20 years, and at my last visit to our Sheboygan Tannery, I found on investigation that some of the woodwork, which was put under ground in a wet place about 17 years ago, is still in excellent condition.

Yours very truly,

J. J. Raetz
3rd Vice President.

FLR.-LLM.



SCHOELLKOPF & CO.
TANNERS OF SHEEP LEATHER.

PERRY, MISSISSIPPI & LIBERTY STREETS.

NEW YORK BOSTON.
CHICAGO PHILADELPHIA.
ST. LOUIS CINCINNATI.
ROCHESTER GLOVERSVILLE.
LONDON

Cable Address "KOPF BUFFALO"
Codes Liebers and ABCIS Heid.

BUFFALO, N.Y. Oct. 7, 1908.

Messrs. Carbolineum Wood Preserving Co.,
349 W. Broadway, New York.

Gentlemen:-

When erecting the leach house of our bark tanyard about twenty years ago we used Avenarius Carbolineum on all the joists. The liquid was heated and applied to the joists after they had been planed. It may interest you to know, and it is the object of this letter to advise you, that when making some changes last week we had occasion to test these joists and found them in practically the same sound condition as when first placed.

Your product was first brought to our attention through mutual friends in Stuttgart, the home of our venerable senior, the late Jacob F. Schoellkopf, and where we believe the firm of R. Avenarius & Co. still have their headquarters.

We have been using and will continue to use Carbolineum on all frame and woodwork which is exposed to dampness or fumes of any kind.

You are at liberty to use this letter if you so desire.
Yours very truly,

Dictated by H.vB.-0

Schoellkopf & Co.,
Alley von Berg.
By.....

DESIGNER AND CONTRACTOR

FOR

COLD STORAGE
INSULATION

SHEET AND GRANULATED
CORK

JOHN R. LIVEZEY

1933 Market St., Philadelphia

Baltimore Office 308 N Holliday St.

REPRESENTING

ARMSTRONG CORE CO
AMERICAN MAGNESIA CO

NORRISTOWN MAGNESIA & ASBESTOS CO

CONTRACTOR FOR
PIPE AND BOILER
COVERINGS

BRINE, AMMONIA,
STEAM AND HOT WATER
PIPE COVERINGS

85% MAGNESIA COVERING

Philadelphia Pa., May 7th, 1910.

Carbolineum Wood Preserving Co.,
182 Franklin Street, New York.

Gentlemen:-

I have your valued favor of the 5th asking me my opinion on Carbolineum as a wood preservative, and in reply would state that we have used it in our cold storage construction work.

The class of work on which we have used this is around ice plants, such as ice making tanks, ice storage rooms and around the framing of general storage rooms.

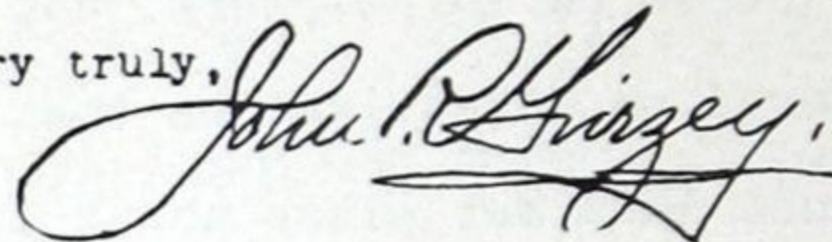
We have also used it on the exposed woodwork on different classes of cold storage rooms, and on the doors and framing of cold storage rooms finished with cement.

Our reason for using it in this manner is on account of the deterioration and rotting of lumber in this particular class of work; and on account of great moisture which is in these rooms at times. We have kept a close watch on it, and we find that all lumber treated with it is in far better condition than any lumber under similar conditions without it.

We would not hesitate to use and recommend its use for any purpose on all cold storage work.

Yours very truly,

JRL/MFR. 25. G.



Room 15

TELEPHONE CONNECTIO.

LOUIS BLOCK
CONSULTING ENGINEER

45 EAST 42d STREET

NEW YORK May 7, 1910.

Carbolineum Wood Preserving Co.,
182 Franklin Street, New York.

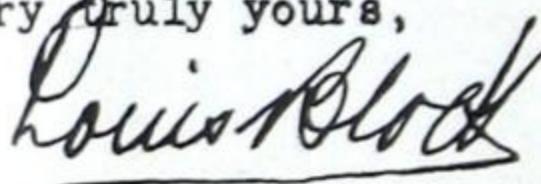
Gentlemen:-

In answer to your favor of the 6th inst., would say that Avenarius Carbolineum was first called to my attention in 1888 when I was Chief Engineer of the De La Vergne Machine Co., of New York.

I have used Carbolineum ever since that time for painting wood-work which is alternately wet and dry, such as cooling towers, timbers and condensers and water-coolers, etc. The results obtained have always come up to my expectations.

As Consulting Engineer I specify your Carbolineum, and my clients seem to be as well satisfied with it as I am.

Very truly yours,



J. C. BERNSCH, M.E.

ARTIFICIAL
REFRIGERATION
FOR ALL PURPOSES

REFRIGERATING ENGINEER.
ARCHITECT

MEMBER OF THE
AMERICAN SOCIETY OF
MECHANICAL ENGINEERS

PLANS AND SPECIFICATIONS FOR MACHINERY AND BUILDINGS



Atlanta, Ga. Oct. 15, 1908.

228 BROWN-RANDOLPH BUILDING

Carbolineum Wood Preserving Co.,
New York City.

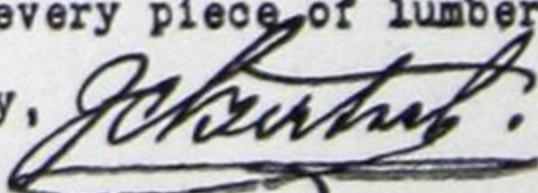
Gentlemen:-

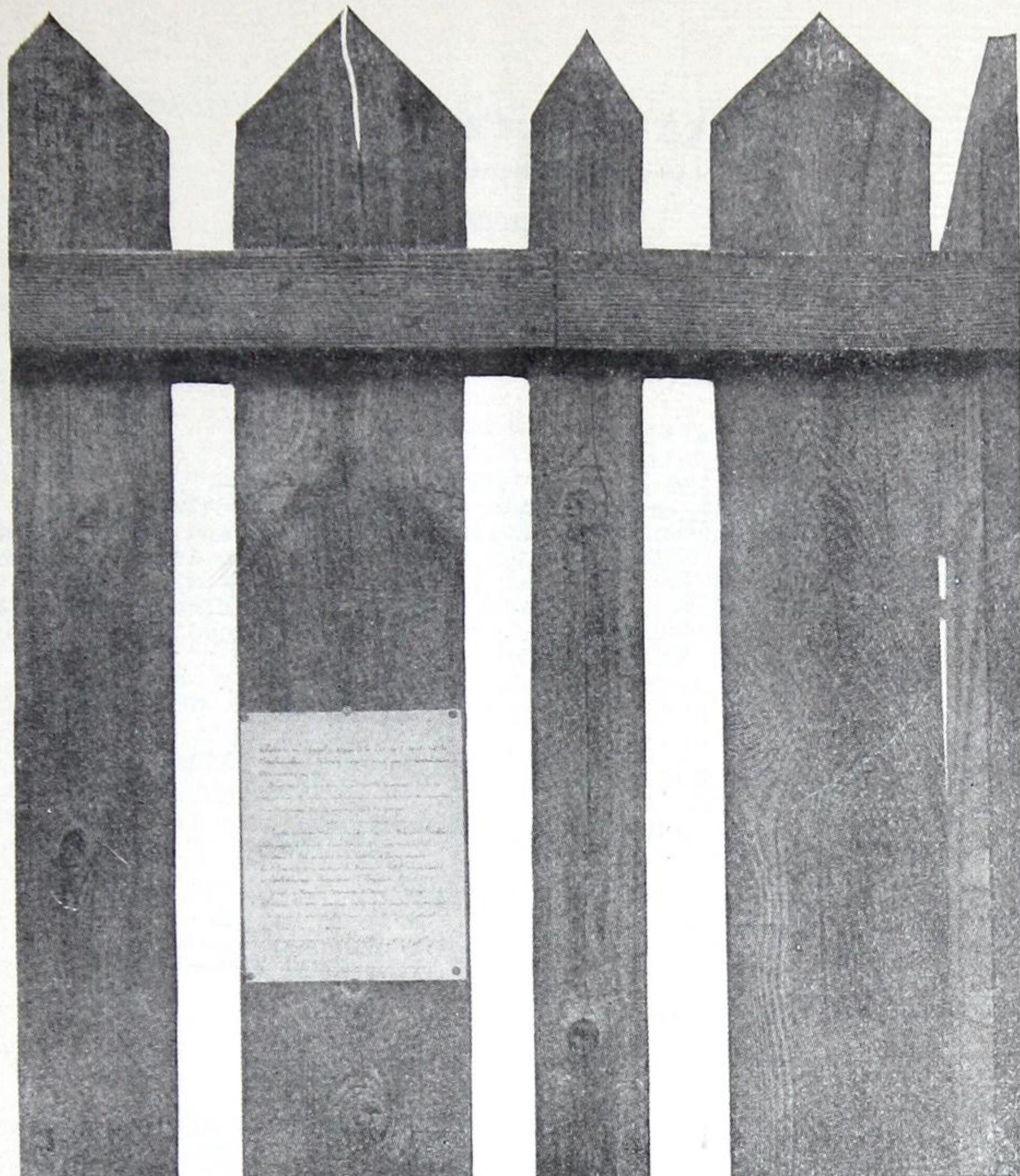
In reply to your inquiry of the 7th inst., I beg to state that Avenarius Carbolineum should be used on all woodwork going into the construction of an ice or refrigerating plant.

The freezing tanks and storage rooms are insulated by several thicknesses of boards and paper, forming air spaces. The least leak through joints or cracks in these boards allows the air to reach and to circulate in these air spaces, which causes a deposit of moisture on the cold surfaces. This moisture soon saturates all the lumber and causes rot and the destruction of the insulating capacity as well as the entire structure. To prevent this all woodwork should receive two coats of Carbolineum, which will keep the whole insulation in good shape and efficiency for a long time. While I was in charge of the ice plants in Macon, Athens and Dublin, Ga., I had the lumber, framework as well as all boards, painted with two coats of Carbolineum, and am sure that the life of the structure is thereby at least doubled, and consequently the insulating efficiency preserved, because the woodwork cannot absorb moisture so readily.

Anyone who wishes to save money in the long run and to make the most efficient insulation will do well to preserve every piece of lumber used for insulation with Carbolineum.

Yours very truly,





Photograph taken June 22, 1906, showing section of fence surrounding the Artillery Barracks at Brichambeau-Nancy, France, painted with Avenarius Carbolineum in 1887. The resident Chief of Engineers authorized this photograph and the attached affidavit, acknowledged before the Mayor, setting forth the perfect condition of the wood and that no additional coating was applied to the fence during the period of nineteen years.

No. 14.



No. 1.



From the work of E. Henry, Professor of the National School of Forestry, entitled "The Preservation of Wood Against the Action of Rot, Fungus and Insects."

Cross sections of two beech blocks (cut through center). No. 14 immersed for twenty-four hours in Avenarius Carbolineum, No. 1 left untreated. Both blocks were buried in soil rich in humus for three years, the upper surface exposed level with the ground.

O'GARA COAL COMPANY,

MARQUETTE BUILDING

CHICAGO,

REFER TO FILE NO.

Carbolineum Wood Preserving Co.,
Mr. Ernest F. Hartmann, Pres.,
New York.

April 25, 1910.

Dear Sir:-

I have yours of the 20th.

As stated in your letter, while with the Chicago Virden Coal Company, I used the Carbolineum for treating scale timbers and other timbers where it was specially desirable that they be protected from decay, and so far as my knowledge extends your material did what was claimed for it. I have a very high opinion of your preparation and am still using it, notwithstanding we can buy other preservatives, claimed to be as good, for a much less price.

Yours very truly,

F.M. Lusious

General Manager of Mines.

UNITED STATES COAL AND OIL COMPANY

"ISLAND CREEK COAL"

PAUL HARDY
GENERAL MANAGER

HOLDEN
WEST VIRGINIA
April 25th, 1910.

The Carbolineum Wood Preserving Co.,
New York City.

Gentlemen:-

In reply to yours of April 22nd we beg to advise that we have been using your Avenarius Carbolineum and consider it a great success. Timber so treated shows, at the present time, to be in actually better condition than when the timber was erected or put in the mine.

Yours very truly,

Paul Hardy

General Manager.

S. F. DANA, President.

E. O. DANA, Vice-Pres't and Treas.

R. P. GILLHAM, Sec'y and Gen. Mgr.

GENERAL OFFICES:
Mercantile Library Building,
Cincinnati, O.

THE CAMPBELL'S CREEK COAL CO.

ELEVATORS:
Cincinnati, O.
Newport, Ky.

PRODUCERS AND DISTRIBUTORS OF

CAMPBELL'S CREEK SEMI-CANNEL COAL

KANAWHA STEAM AND DOMESTIC FUELS

TOWING, FREIGHTING, HARBORING, DREDGING

STEAMERS:

E. R. Andrews.
Robt. P. Gillham.
D. T. Lane.
W. B. Calderwood

TUGS:
Iron Duke.
Eddy Martin.

MINES:
Putney, W. Va.
Dana, W. Va.

E. A. BURNSIDE, Manager of Transportation.

POINT PLEASANT, W. VA. April 25, 1910.

Mr. Ernest F. Hartmann, Pres.,
Carbolineum Wood Preserving Co.,
New York, N. Y.

Dear Sir:-

Your letter of the 16th inst. to Mr. Robert P. Gillham, General Manager of this Company, has been referred to me.

We have one boat on which the wood preservative was used. It was applied with a brush to the pieces as the boat was built, then when put together, it was applied again. After the boat had run a year, I put a spraying machine in her hull and had the hull throughout sprayed. The boat was constructed nine years ago this September and she shows very good results so far, very little soft timber and the wood all sound and firm.

In a boat of this age, not having been treated, it would have needed almost an entire new hull by this time.

We are believers in using preservative on wood for any purpose where it is liable to decay prematurely. We have another boat, the D. T. Lane, in which all the wood was treated, the smaller pieces being soaked in a tank full of preservative, the larger pieces being well painted with the stuff. We expect her to last over ten years anyhow. We have several barges treated also one fully treated by applying with brush, others partially treated by applying with brush to seams, scarfs and butts in the timbers.

Yours truly *E.A. Burnside*
Manager of Transportation.

The Philadelphia & Reading Coal & Iron Company.

Timber Department.

POTTSVILLE, PA.

May 5th, 1910.

Mr. Ernest F. Hartmann, President,
Carbolineum Wood Preserving Co.,
New York City, N.Y.

Dear Sir:-

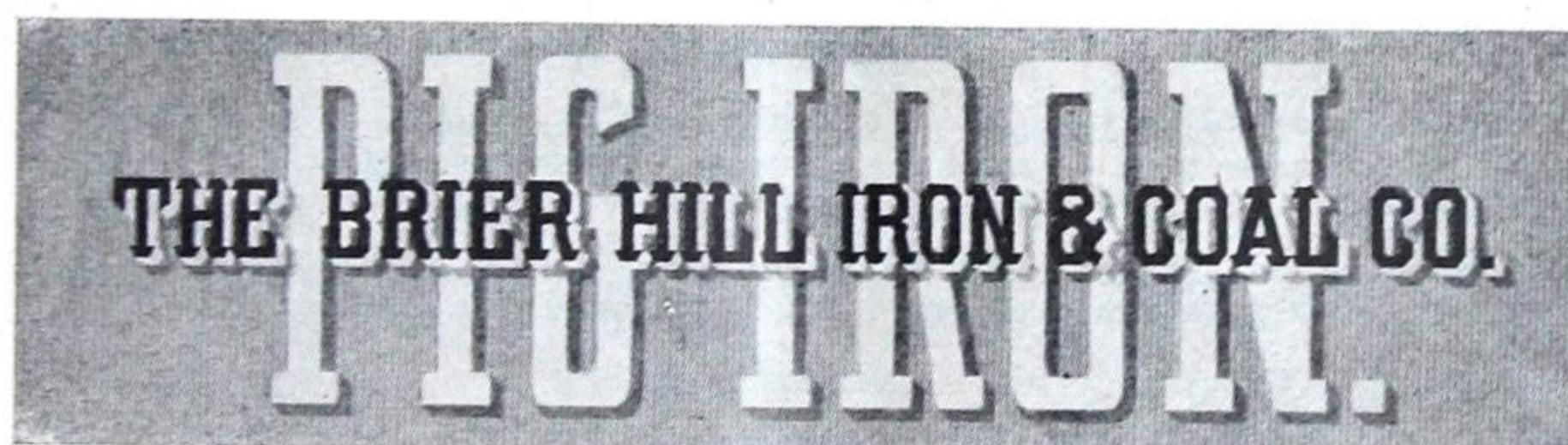
Your letter of May 3rd is received.

I am very glad to give you a statement with reference to
the value of "Avenarius Carbolineum" as a preservative of mine timbers.

"We have used "Avenarius Carbolineum" in our experimental
work in treating mine timbers at Silver Creek Colliery. At this colliery
the average life of untreated timber is not more than two years, and we
believe that "Avenarius Carbolineum" applied with a brush is an efficient
preservative and will add at least 50 per cent to the life of this timber.
I am glad to recommend "Avenarius Carbolineum" as a preservative paint, or
where a superficial treatment is desired. Even better results can proba-
bly be obtained by dipping the timber in a bath of the preservative, rather
than by painting the timber with it. We believe that for a light preserva-
tive treatment which requires no expensive plant in application, that
"Avenarius Carbolineum" can be used with economy, and we are glad to
recommend its use in structural work both outside and inside the mines."

Very truly yours,

John M. Nelson Jr.
Superintendent.



H. H. STAMBAUGH, Pres.
JOHN TOD, V. Pres.
J. G. BUTLER, J. W. Genl. Mgr.
R. C. STEESE Secy & Treas.

Youngstown Ohio. April 6, 1910.

Carbolineum Wood Preserving Company,
182 Franklin Street, New York, N. Y.

Gentlemen:-

Replying to your favor of the 4th instant, will say that the
trestles we coated with Carbolineum about ten years ago are still in very
good state of preservation. Some of the timbers we have found necessary to
remove, due largely we think to defective timber when put in. We are still
using Carbolineum on all work of this character that we erect.

Yours very truly,

The Brier Hill Iron & Coal Company.

R. C. Steele
Secretary & Treasurer

FROM SAME, - MAY 14th, 1906.

Six years ago in the rebuilding of one of our trestles we coated
half of the work with Carbolineum in order to demonstrate its advantages.
The timbers that were coated at this time are in as good condition to-
day as the day they were put in. Those that were not coated were found
this Spring to be rotten and unsafe and were replaced with new timber.
We performed this same experiment in similar work four years ago with
practically the same result. The timber that was not coated at that
time now shows considerable rot, while the other is as good as new.
Three years ago we decided to use Carbolineum on all new work and we
think we will be amply repaid.

NORDDEUTSCHER LLOYD
Technischer Betrieb
Bremerhaven.

Teleg. Adress: Lloydbetrieb Bremerhaven.

Telephon Amt Bremerhaven No. 195

Adresse für Bahnsendungen: Bremerhaven, Freihafen.

Korrespondenzen sind an obige Adresse,
nicht an Personen zu richten.

Journ. No 56804.

(Es wird ersucht, in der Antwort
vorstehende Nr. anzugeben.)

To the Carbolineum Wood Preserving Co.,
NEW YORK.

Acknowledging receipt of your favor of the first instant, we respectfully advise that we have used Carbolineum Avenarius as a wood preservative exclusively for many years on various wooden structures, and we are well satisfied with the results obtained.

Respectfully,
NORDDEUTSCHER LLOYD
Technischer Betrieb

Chief Inspector.

Bundesputation,
Sektion für Strom- und Hafenbau.
Eisenbahnbauinspektion.
Ges. M. E 575/10.

Hamburg 14, den 14. April, 1910.
Dalmannstraße

To the Carbolineum Wood Preserving Co.,
New York.

In reply to your inquiry of the first instant, which came to hand to-day, I beg to state that we have used Avenarius Carbolineum in our Department continuously since 1890 for the impregnation of bridge timbers, fences, sheds and planking.

Judging by the results obtained by us with this material, it is the most efficient wood preservative, and its use in our Department will be continued.

Respectfully

Commissioner of Railway Construction.

Chr. Müller & Sohn
Dümmingenhausen, den 16. April. 1910.

Giro-Konto: Reichsbank-Nebenstelle Gummersbach.
POSTSCHECK-KUNTO NR. 2401, CÖLN.
Telegramm: EMIL MÜLLER, DÜMMINGHAUSEN.
Fernruf: AMT GUMMERSBACH NR. 5.
Bahnadresse:
a) für Einzelstückgüter: BERGNEUSTADT.
b) für Wagenladungen: DERSCHLAG. ::

Betr. Ihr Schreiben vom 4. April.

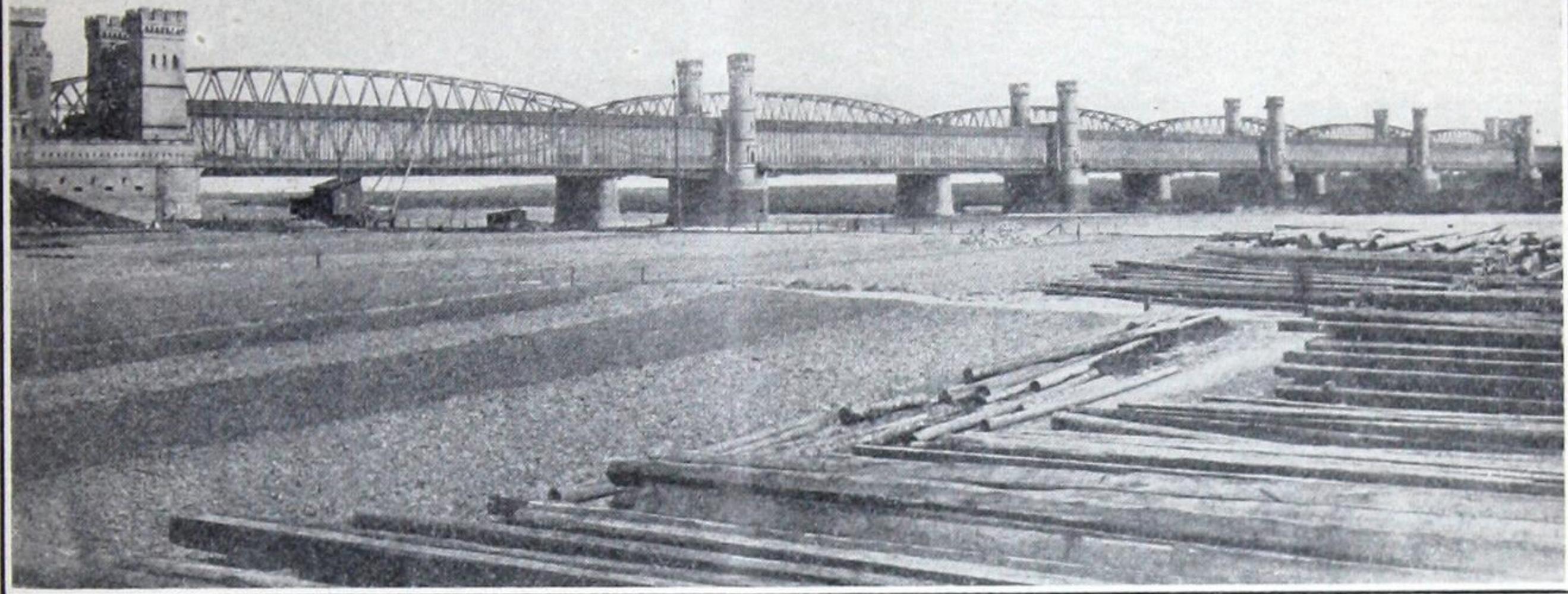
Carbolineum Wood Preserving Co., NEW YORK, N. Y. -

For over twenty years we have been using Carbolineum Avenarius for the impregnation of all timbers which are to come in contact with stone walls or are to be placed in the ground, or which will be exposed to the influences of the weather. According to our experience Carbolineum is a very excellent preparation for preventing decay, and it surpasses in quality any and all competitive articles which we have also tested occasionally. We now use only Carbolineum Avenarius and shall remain true to same in future.

Very respectfully,

ppa Chr. Müller & Sohn.

Alle Rechnungen erbitten wir in doppelter Ausfertigung.



Bridge on the Riga-Orel Railway, Russia, crossing the Vistula River. Bridge ties and timbers painted with Avenarius Carbolineum.

CRAWSHAW & WARBURTON, Ltd., Dewsbury, England.

We have used Carbolineum Avenarius for coating timber used both in and outside at our mines since 1891, and can still confirm all that we have previously stated as to its great efficiency as a wood preservative.

MIDLAND RAILWAY, Signal Department, Derby, England.

Avenarius Carbolineum has been used since 1885 as a preservative for wood and we find that it answers its purpose admirably.

L'ADMINISTRATEUR GENERAL de ETAT INDEPENDANT du CONGO, Department de l'Interieur, Brussels.

For over twenty years we have used Carbolineum Avenarius for preserving wood used in railroad and other construction with very satisfactory results.

ADMINISTRAZIONE del CONTE GILBERTO BORROMEO, MILANO (Italy).

Your Avenarius Carbolineum has been used by us since many years to prevent the decay of wood in all kinds of structures exposed to the weather.

BUREAU GEMEENTEWERKEN HAARLEM, JAQUES LEIJH, City Architect.

(HOLLAND.) With pleasure I state that I have used Avenarius Carbolineum with success for treating various woodwork. It is my opinion that wood painted with this preservative is perfectly protected against decay.

Users in the Tropics certify to the efficiency of Avenarius Carbolineum as a preservative and as a safeguard against the destructive action of white ants.

Grosse Berliner Strassenbahn.

BERLIN W.,
Leipziger Platz 14.

May 2, 1910.

Geschäftsbuch-Nr.

Es wird gebeten, in der Antwort die
Geschäftsbuch-Nummer anzugeben

**The Carbolineum Wood Preserving Co.,
182 Franklin Street, New York, N.Y. -**

With reference to your favor of April 1st, I am pleased to state that we have been using Avenarius Carbolineum since the organization of our Street Railway, that is, since 1873. We have used it for treating wooden cross-ties, fences, construction sheds, etc., and the results obtained in increasing the durability of the wood have been very good.

Respectfully yours,
The Management.

WINTER HAVEN, FLA. February 22nd, 1910.

Carbolineum Wood Preserving Co.,
New York.

Gentlemen:-

I have put off answering your letter in regard to my experience with Avenarius Carbolineum until I could look over a job I had done in 1894. To-day I made an examination. In 1894 I had to fit up a laundry in the basement of the Florenceville Hotel. The floor of this room, which measured 20' x 38', was to be four feet below the grade. I used 2 x 4" pieces placed flat on the ground and filled to a level with the soil. Matched 7/8" flooring of our Florida pine was used.

During the early summer I had the flooring thoroughly treated with two coats of Avenarius Carbolineum put on hot, and the 2 x 4" strips also. The lumber was then stacked up and allowed to dry for some two or three months.

To-day after a little over sixteen years I find the floor in good condition, with no rot or even soft places in it. For three months in the year this room is used hard, being wet and dry several times each day. Now from my experience I am satisfied that this lumber would have dry-rotted, and would have had to be renewed in four years if not treated, while to-day it looks good for ten years more.

Very truly yours,

A. B. Harrington

MICHIGAN CENTRAL RAILROAD COMPANY



BRIDGE ENGINEER'S OFFICE

Detroit, Mich.

January 28th, 1907.

GEO B WEBB.
Chief Engineer
H IBSEN.
Bridge Engineer

File-290

Carbolineum Wood Preserving Co.,
Milwaukee, Wis.

Gentlemen,-

Your letter received. I have not made any report regarding tests made with Avenarius Carbolineum in Oct. 1898 near Mich. City and on the overhead bridge at Chappell, Ills. during March 1897, on account of the foreman having been too busy to make examinations.

The bridge on our Joliet Div. on which Carbolineum was applied in 1898, he has examined, and found in the two bents that generally only last five years, with untreated timber, that the sills of the bents are still in good condition, excepting only one post in one bent and two in another, that had started to dry-rot, so that we will have to splice these posts. The other posts were in good condition and showed no signs of decay as yet.

I will make it a point next summer to make a special inspection of these bents to see how they are then.

Yours truly,

J. Ibsen

Bridge Engineer.

Form No. 514-B.					
Washington Order No. 17744 Canal Zone Req. No. 3544-A					
ISTHMIAN CANAL COMMISSION PURCHASING DEPARTMENT WASHINGTON, D. C.					
MARK ALL PACKAGES:					
May 17, 1909. I.C.C. Colon W.O. 17744					
Chief Quartermaster 3544-A					
Carbolineum Wood Preserving Company, 349 West Broadway, New York, N. Y. <i>Sirs:</i> You are requested to supply the Isthmian Canal Commission with the following articles, billed as ordered, and itemized at net prices:					
<table border="1"> <thead> <tr> <th style="text-align: left;">Unit Price</th> <th style="text-align: left;">Total Price</th> </tr> </thead> <tbody> <tr> <td colspan="2">6 bbls. Carbolineum, Avenarius, in stout barrels, 54 gallons a barrel (324 gallons); for</td> </tr> </tbody> </table>		Unit Price	Total Price	6 bbls. Carbolineum, Avenarius, in stout barrels, 54 gallons a barrel (324 gallons); for	
Unit Price	Total Price				
6 bbls. Carbolineum, Avenarius, in stout barrels, 54 gallons a barrel (324 gallons); for					
Form No. 514-B.					
Washington Order No. 22026 Canal Zone Req. No. 4284-A					
ISTHMIAN CANAL COMMISSION PURCHASING DEPARTMENT WASHINGTON, D. C.					
March 22, 1910. MARK ALL PACKAGES:					
<table border="1"> <thead> <tr> <th style="text-align: left;">I.C.C. COLON W.O. 22026 Z.R. 4284-A</th> </tr> </thead> </table>		I.C.C. COLON W.O. 22026 Z.R. 4284-A			
I.C.C. COLON W.O. 22026 Z.R. 4284-A					
Carbolineum Wood Preserving Company, 182 Franklin Street, New York City, N. Y. <i>Sirs:-</i> <i>You are requested to supply the Isthmian Canal Commission with the following articles, billed as ordered, and itemized at net prices:</i>					
<table border="1"> <thead> <tr> <th style="text-align: left;">Unit Price</th> <th style="text-align: left;">Total Price</th> </tr> </thead> <tbody> <tr> <td colspan="2">20 barrels Carbolineum, Avenarius, in stout barrels. Approximately 1,080 gallons per gallon \$0.82-1/3 \$889.20</td> </tr> </tbody> </table>		Unit Price	Total Price	20 barrels Carbolineum, Avenarius, in stout barrels. Approximately 1,080 gallons per gallon \$0.82-1/3 \$889.20	
Unit Price	Total Price				
20 barrels Carbolineum, Avenarius, in stout barrels. Approximately 1,080 gallons per gallon \$0.82-1/3 \$889.20					

From the United States Government Advertiser, October 21, 1909.

"CARBOLINEUM. Bids were opened on October 4th by the Depot Quartermaster, Jeffersonville, Circular 483, for furnishing 5,000 gallons Carbolineum for Manila, Philippine Islands.

Bid of the Carbolineum Wood Preserving Co. was accepted, delivery to be made within 20 days at New York."

The first order for Avenarius Carbolineum for use in the Philippines was placed by the Government during November, 1899; since then thousands of gallons have been used, and the above order, after ten years' experience, conclusively attests the value of the preservative used, more so as lumber decays rapidly in tropical climates.

**STATE OF NEW YORK.
DEPARTMENT OF STATE ENGINEER AND SURVEYOR
ALBANY.**

Frank M. Williams, State Engineer and Surveyor.
SPECIFICATIONS FOR BARGE CANAL CONTRACTS.

Extract:

515c All wheel guards, blocking pieces and nailing strips shall be coated on all surfaces after being fitted and before bolting in place with two coats of hot genuine "CARBOLINEUM AVENARIUS," or other preservative, which, in the opinion of the Engineer, shall be equally satisfactory.

**CITY OF PHILADELPHIA.
DEPARTMENT OF PUBLIC WORKS.
BUREAU OF HIGHWAYS.**

Specifications to be observed in Contracts for
CONSTRUCTING WOODEN TRUNK DRAINS.

Extract:

All wood used in the construction of trunks shall receive two coats of Carbolineum, applied hot, with a wire-bound brush, so that every portion be thoroughly covered; all checks, cracks, etc., shall be run full of Carbolineum and knotty surfaces shall be thoroughly covered.

George R. Stearns, Director.



CLYDE STEAMSHIP COMPANY

GENERAL OFFICES PIER 36 N R NEW YORK

W M TUPPER
SUPERINTENDENT

JACKSONVILLE, FLA April 26, 1910.

Mr. Ernest F. Hartmann, Pres.,
182 Franklin St., New York.

Dear Sir:-

Your several letters concerning our use of wood preservative known as Avenarius Carbolineum received. I have been using this Carbolineum for a long time for lighters both inside and out to preserve the wood and believe that it is accomplishing the object for which I purchased same or I would have discontinued its use long ago.

Yours truly,

W M Tupper

ESTABLISHED 1870

INCORPORATED 1903

HARBOR LIGHTERAGE
LONG ISLAND SOUND.
HUDSON RIVER.
ERIE CANAL.

F. W. JARVIS COMPANY
TRANSPORTATION

90-96 WALL STREET

STEAM CANAL BOATS
CANAL BOATS
AND BARGES
FOR ALL POINTS
TO BUFFALO.

NEW YORK, Aug. 19, 1908.

Ernest F. Hartmann, Prest.,
Carbolineum Wood Preserving Co.
New York.

Dear Sir:-

Having used "Avenarius Carbolineum" since 1896 - on canvas and repair work to our barges as well as four new barges built during the last two years, can only say, that, the fact of our using it is the best evidence that we consider it the best preservative for wood and canvas we have ever found.

It is uniform and applied according to directions cannot fail to give good results.

Yours very truly,
F W Jarvis

Repair work in all its branches.
Six Sets of Marine Railways.
Capacity 1000 Tons.
Draught 22 Feet.

Telephone, 1 City Island.
" 2 "

ROBERT JACOB,
SHIP AND YACHT BUILDER,
IN STEEL, IRON OR WOOD

City Island, New York. April 8, 1910.

To the

Carbolineum Wood Preserving Co.,
182 Franklin Street, City.

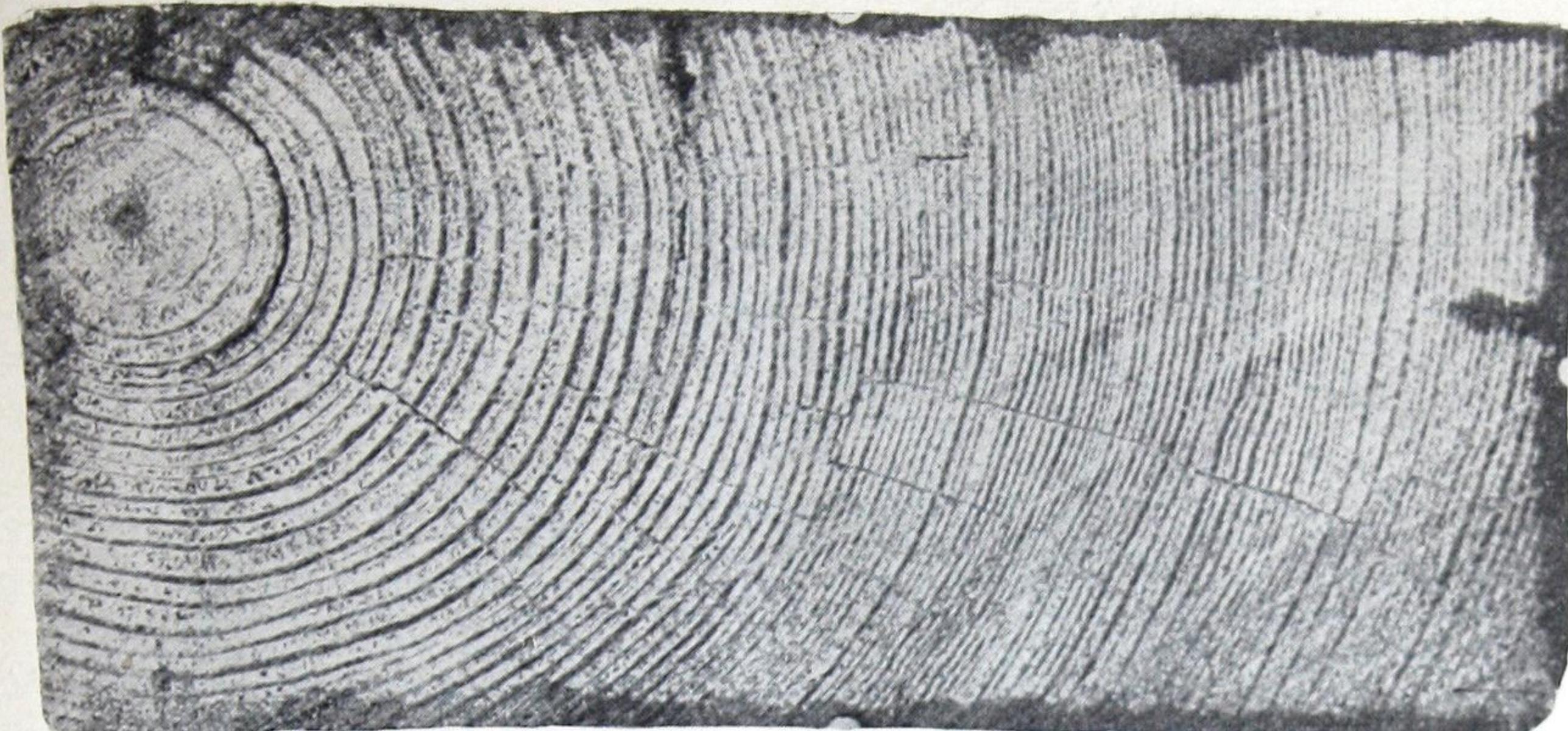
Gentlemen:-

In reply to your letter of recent date in reference to my experience with your Carbolineum, I take pleasure in stating that a number of years ago I used some of this material to paint a marine railway, for use under water. In this locality we are very much troubled by the teredo worm, and all wood under water is attacked at once by a growth of barnacles and weeds. I am pleased to say that your Carbolineum has withstood for at least five years the ravages of the teredo worm, and has little if any growth of barnacles or weed. I am again using your material on marine railways that I am reconstructing.

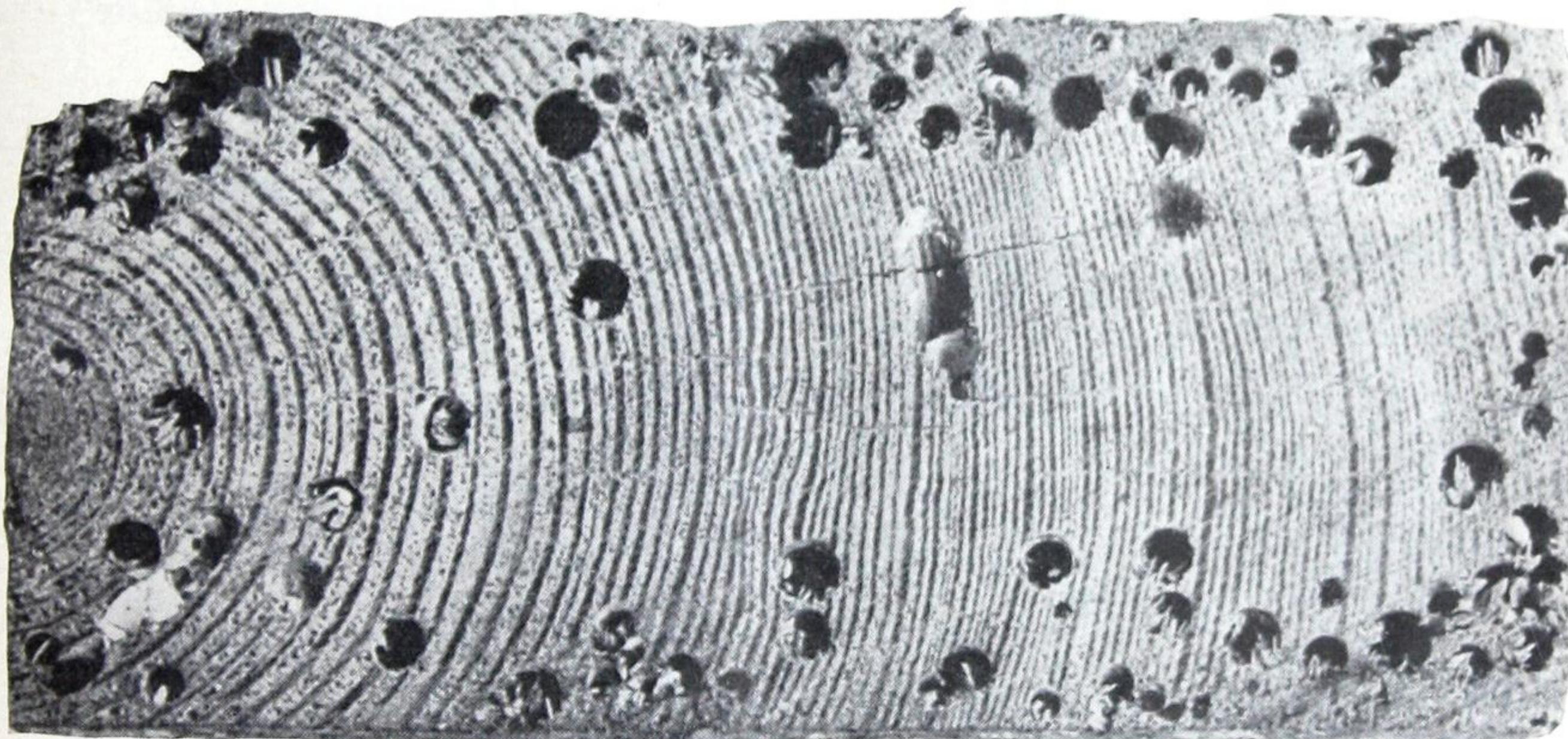
Believing Carbolineum to be all you claim for it, I remain,

Yours very truly,

Robert Jacob



Test made with two pieces of 3"x 6" all heart Yellow Pine by Mr. John Murdoch, Assistant Lighthouse Engineer, Fifth Lighthouse District, Baltimore, Md., in waters badly infested with the teredo off Hogg Island. The upper piece received one brush coat of Avenarius Carbolineum; the other piece received no treatment whatever. Both pieces were removed after having been exposed for one year, and the result is well illustrated by the cross sections reproduced.



Rickmers Reismühlen, Rhederei & Schiffbau A.-G

TEL. ADR. RICKMERS
TELE-CODES
KARBERG'S SHIPPING CODE IN VERBINDUNG
MIT WHITELAW'S CYpher CODE
SCOTT'S REPRINT | 1898 4TH EDITION
1906 10TH EDITION
WATKINS' CODE
A. B. C. CODE 5TH EDITION
A. N. CODE

Bremerhaven, 13. April, 1910.

Carbolineum Wood Preserving Co.,
N E W Y O R K .

"AVENARIUS CARBOLINEUM": We acknowledge the receipt of your favor
of the first instant.

We have used Carbolineum Avenarius with great success for many years
for the preservation of all kinds of woodwork, where paint is usually not
applied. Carbolineum Avenarius prevents rot, and increases the life of the
treated wood materially. We have also made tests with other so-called
carbolineums manufactured here, but have come back to Carbolineum Avenarius
and now use same exclusively.

Respectfully,

RICKMERS

REISMÜHLEN, RHEDEREI & SCHIFFBAU A.-G.

The ONLY Agricultural NEWspaper.

The Country Gentleman



LUTHER TUCKER & SON, PUBLISHERS, ALBANY, N.Y.

Avenarius Carbolineum was first brought to our notice years ago, by a subscriber and friend, who was in no manner interested in the business, but was greatly interested in the preservation of the wood of country structures and had become satisfied, after careful inquiry and examination of old wood that had been treated with it, that its preservative effect was extraordinary, and that we ought to know about it. Since then we have received any number of commendations of the preparation from our readers, not only for the preservative purpose for which it is primarily recommended, but for sundry other incidental benefits, it having been found, for one thing, an effective protective against the ravages of rats and similar vermin. We have no doubt whatever of its great value on wood exposed to the weather, — so much so, that our Editor in Chief has recently had a new piazza treated with it, and would not erect any similar structure without putting it on. We feel fully justified in commending it to everybody who has exposed woodwork of any description.

Luther Tucker & Son
Publishers Country Gentleman

5/29/10.

TELEPHONE, 88TH-4848

The Agricultural Experts Association *(incorporated)*

604 TRANSIT BLDG (6-7 EAST 42ND STREET)

GEORGE F. POWELL, PRESIDENT
Cyrus S. MILLER, VICE-PRESIDENT
CHARLES H. PLUMB, TREASURER AND SECRETARY

NEW YORK

Sept. 27th, 1909

Ernest F. Hartmann, President,
Carbolineum Wood Preserving Co.,
New York.

Dear Sir:=

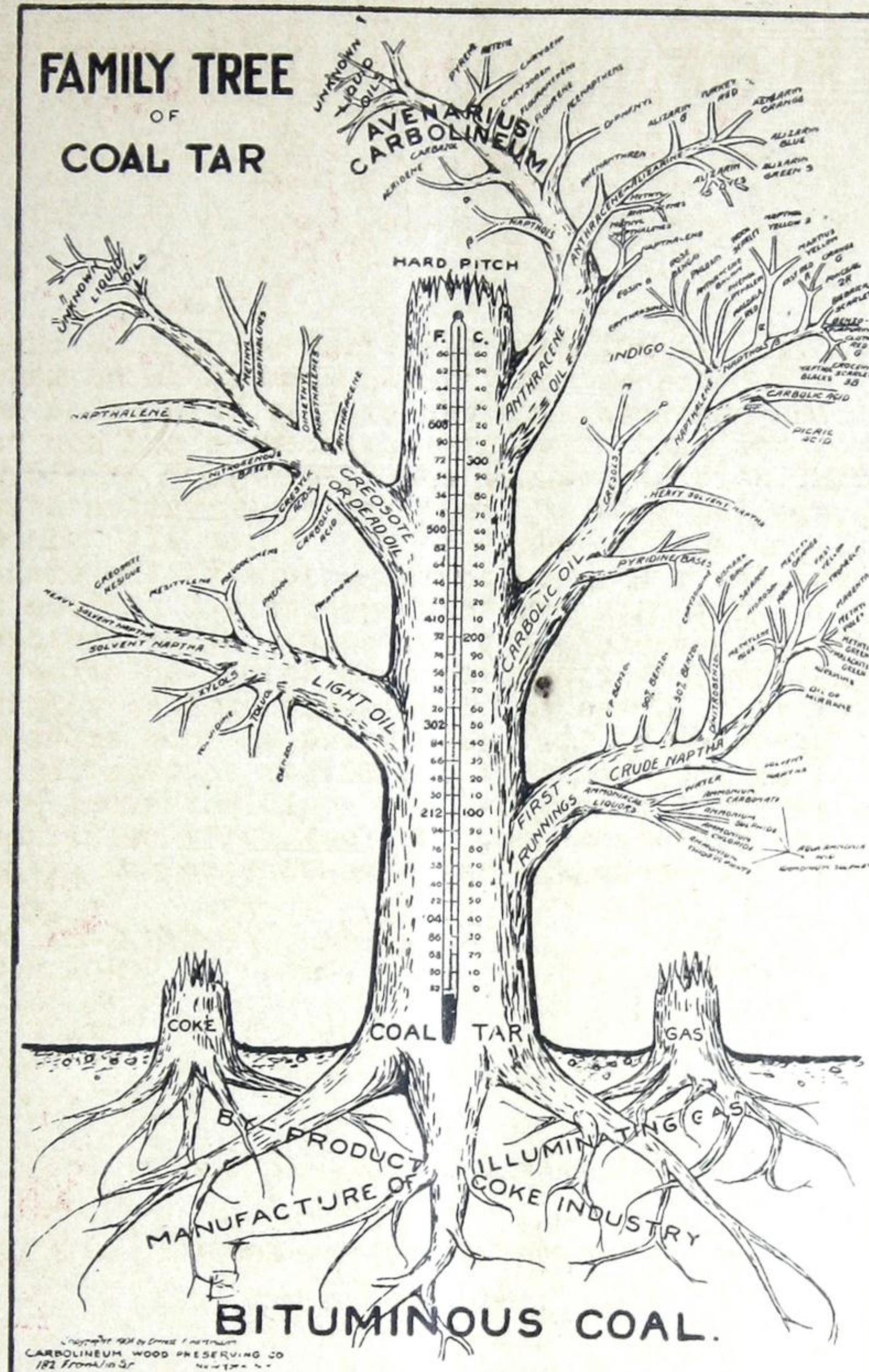
Yours received. We took out a number of the vineyard posts that had been treated with Carbolineum, and at the end of fifteen years found them still in good condition. The preservative power of Carbolineum is certainly very valuable.

We are now using Carbolineum on our fruit trees, hoping to save our trees from the attack of borers, having 10,000 Apple trees on the farm, it is a matter of large expense to have men go over these trees every year to take the borers out of them. Every tree that has reached eight years of age and is killed by the borers, represents a loss of \$100.00 and on many fruit farms, a considerable number of trees die annually from the work of the borers. It will take another year or more to determine the value of Carbolineum for this purpose, but it seems as though it would give successful results. We are also testing it upon the San Jose Scale where the bodies and main branches become infested, by applying with a brush the work of the Scale on these parts of the tree may be checked during the growing season.

Very truly,

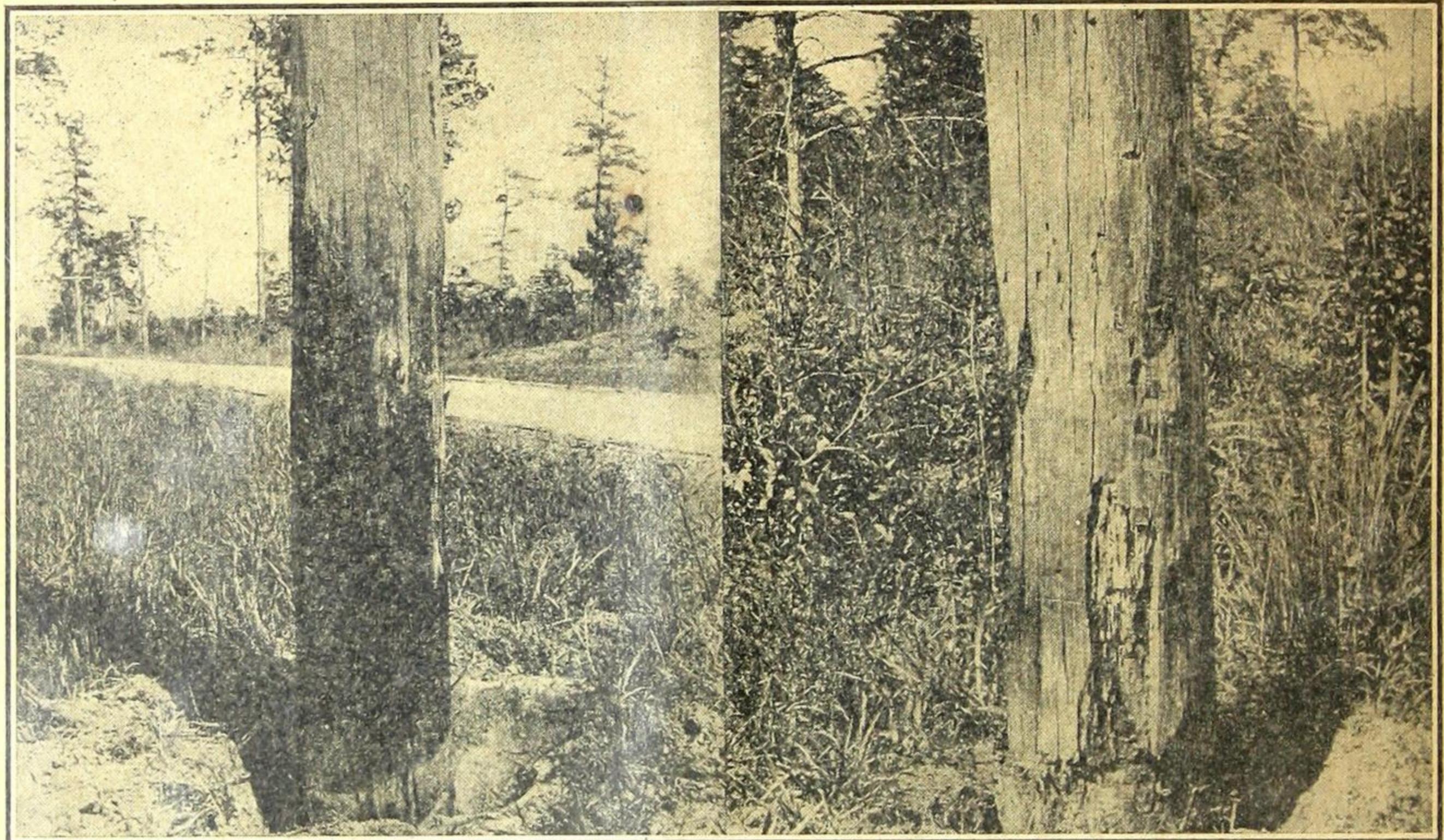
George F. Powell.

FAMILY TREE OF COAL TAR



THE THERMOMETER OF THIS FAMILY TREE OF COAL TAR APPLIES ONLY TO THE BOILING RANGES OF THE FRACTIONS TAKEN IN THE FIRST DISTILLATION OF THE TAR, AND THE BOILING POINTS OF THE INDIVIDUAL COMPOUNDS CANNOT BE INFERRED FROM THEIR HEIGHT IN COMPARISON WITH THE THERMOMETER. THIS IS NECESSARILY SO SINCE THE TEMPERATURES AT WHICH THE SUBSTANCES COME OVER IN THE FIRST DISTILLATION ARE OFTEN FAR FROM THEIR BOILING POINTS, AND SINCE MANY OF THE SUBSTANCES IN THE BRANCHES DO NOT DISTIL AT ALL, BUT ARE DECOMPOSED BEFORE THEY VOLATILIZE.

THE OBJECT OF THIS TREE IS TO SHOW THE DERIVATION AND COMPOSITION OF AVENARIUS CARBOLINEUM AND ITS RELATIONSHIP TO THE OTHER MEMBERS OF THE COAL TAR FAMILY. THE CONSTITUENTS OF AVENARIUS CARBOLINEUM ARE DERIVED WHOLLY FROM THE GROUP OF HEAVY ANTHRACENE OILS WITH ITS WELL KNOWN ANTISEPTIC PROPERTIES. THIS REFINED ANTHRACENE OIL IS CHEMICALLY TREATED TO IMPROVE ITS CHARACTER AND INCREASE ITS EFFICIENCY. THIS ILLUSTRATES THE FACT THAT, UNLIKE ORDINARY CREOSOTE, AVENARIUS CARBOLINEUM IS A REFINED CHEMICAL PRODUCT POSSESSING ALL THE REQUISITES OF A PERFECT WOOD PRESERVATIVE.



White Cedar Poles in the Experimental Line of the Southern Bell Telephone and Telegraph Company, near Savannah, Ga., set in 1905 on a co-operative plan by the American Telephone & Telegraph Company and the United States Forest Service. The butt of the pole on the left of the picture was brush treated with Avenarius Carbolineum and is perfectly sound, while the sap wood on the untreated pole has entirely decayed after a lapse of but four years. Photographed by the United States Forest Service.